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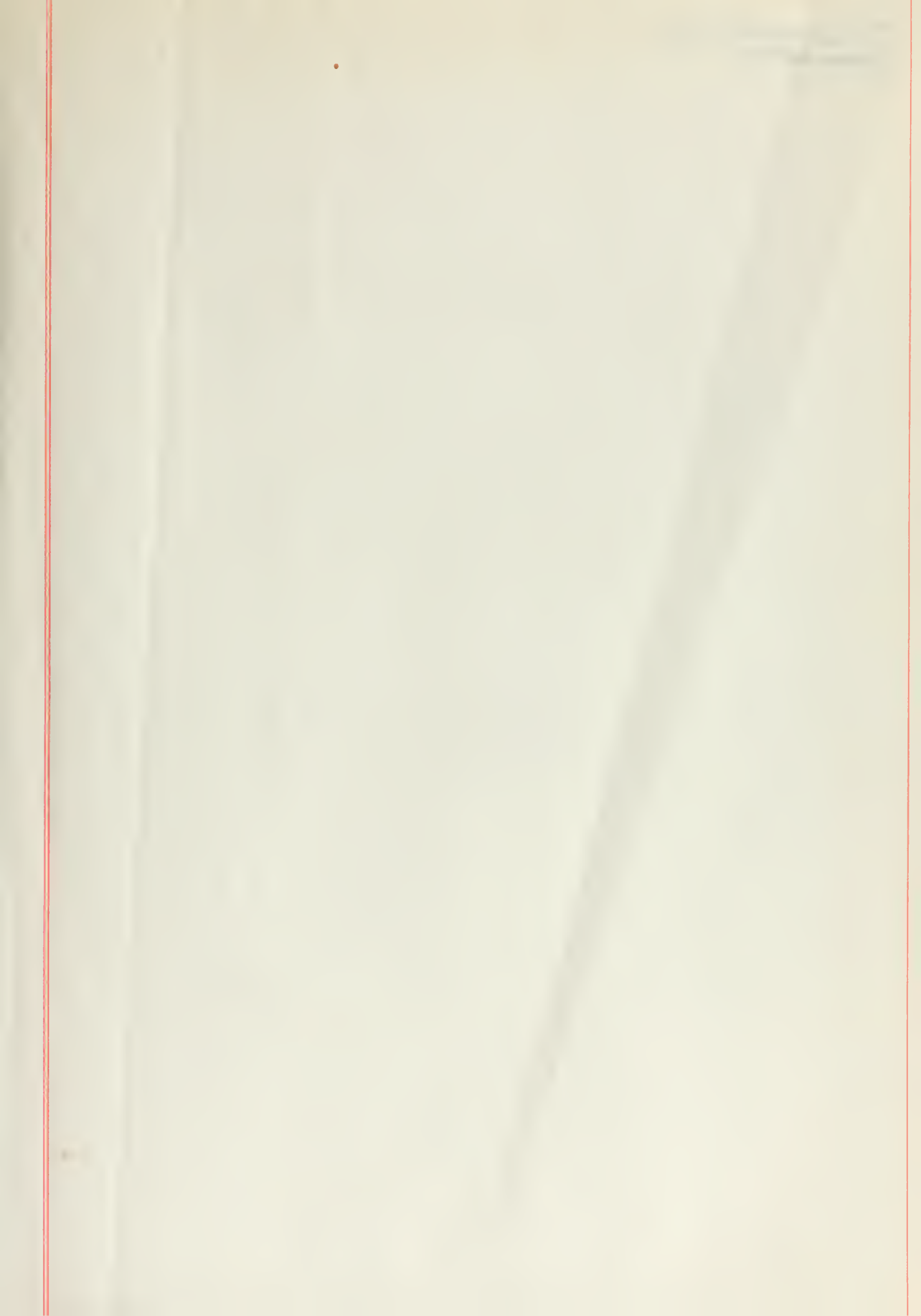
THE
GEORGE WASHINGTON
UNIVERSITY

MEETING CONTINGENCY REQUIREMENTS
UNDER THE FIVE-YEAR FORCE STRUC-
TURE AND FINANCIAL PROGRAM .

by
LT Michael A. Pearce, USN

Thesis
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MEETING CONTINGENCY REQUIREMENTS UNDER
THE FIVE-YEAR FORCE STRUCTURE AND
FINANCIAL PROGRAM

By

Michael A. Pearce
//

Bachelor of Arts, 1958

University of Washington

A Thesis submitted to the Faculty of the School of Government
and Business Administration of The George Washington
University in partial fulfillment of the requirements
for the Degree of Master of Business Administration

April 30, 1966

Thesis approved by

Harry R. Page, A.B., M.B.A.

Assistant Professor of Business Administration

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PREFACE

The Commander-in-Chief has issued the edict that "we must continue to make whatever changes are necessary in our Defense Establishment to increase its efficiency and to insure that it keeps pace with the demands of an ever-changing world . . ."¹ Our ever-changing world and the environment of international tensions which create an atmosphere of more frequent and more highly ordered limited wars directly involving the United States make it mandatory that we be competent and able to cope with all military contingencies. The only rational approach is that of developing a capability of defense funding which is flexible to the point of providing for total as well as limited war. Such a system is within America's spiritual and material resources, but it demands an effective as well as efficient means of planning and budgeting for defense needs. This is the thesis of this paper concerning the adequacy of our nation's capabilities in meeting contingency requirements under the Five-Year Force Structure and Financial Program.

Methodology

The historical and objective material for this study was collected through library and records research. Much of the useful current information

¹U. S. , President Lyndon B. Johnson, "Special Message on the Defense Budget, " State of Our Defenses Message to the 89th Congress, January 18, 1965, 89th Cong. , 1st Sess. , Congressional House Document No. 54, p. 10.

CHAPTER

THE CONSTITUTION OF THE UNITED STATES

The Constitution of the United States is the supreme law of the land. It is the foundation of the government and the rights of the people. The Constitution is a living document that has been amended many times to reflect the needs of the nation. The first ten amendments, known as the Bill of Rights, protect the individual liberties of the citizens. The Constitution also establishes the three branches of government: the executive, the legislative, and the judicial. The executive branch is headed by the President, who is elected by the people. The legislative branch is made up of the House of Representatives and the Senate, which together make the laws. The judicial branch is headed by the Supreme Court, which interprets the laws and ensures that they are consistent with the Constitution. The Constitution is a cornerstone of American democracy and is the source of the government's authority.

CONSTITUTION

The Constitution is the supreme law of the United States. It is the foundation of the government and the rights of the people. The Constitution is a living document that has been amended many times to reflect the needs of the nation.

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to be found in the Department of Defense (DOD) regarding this subject is of a classified nature. To circumvent this restriction, certain information is presented through personal interview methods. Observations and interviews with both military officers and civilian officials of the DOD have served to bring out significant areas of weakness or unworkability. In this regard, no single statement nor any individual's remark should be construed as reflecting any position other than his own. Yet these individuals are the formulators, the submitters, and the users who are actively engaged in proposing changes, supporting "reclama" position papers, and reprogramming. Acting in these capacities, they are responsible executors of the trusts reposed in them.

Justification

Initial development of this study deals with the present programming system which is designed for efficiency and economy in a long-run, semi-routine, peacetime environment as a means of "bridging the gap" between planning and budgeting. We are now faced with responding to a limited war situation under the standing program budget guidelines, the limitations of human abilities, existing statutes, and a political policy which seemingly invalidates our present system. An important problem which must be faced immediately is how we are to continue to program and budget for the necessary defense posture against strategic war, military aid for civil uprisings, and the support of NATO force commitments while maintaining the flexibility to meet limited war requirements.

The effort of this paper is to investigate one aspect of the Five-Year Force Structure and Financial Program. Through a detailed examination of its structure and operation, questions will be asked and answered as to the value of the Five-Year Force Structure and Financial Program in times of increased military mobility and fluctuating force requirements.

This paper is suggested for use as a primer for officers reporting for duty in the programming and budgeting field. The factual revelation concerning the intent of the Programming System in addition to the realistic appraisal of service budgetary problems should provide replacement personnel with the overall perspective essential to constructive effort.

While the program budget has now been reduced to a systematic, if not routine, operation, it has never been required to operate under such prolonged emergency requirements as those encountered in calendar year 1965. Three questions will aid in bringing to light the problems which now seem to encumber the effectiveness of the Five-Year Force Structure and Financial Program. These questions serve to uncover weaknesses in the routine actions of the planning, programming, and budgeting process. The questions are:

1. Does the Five-Year Force Structure and Financial Program contain sufficient flexibility and/or adequate resources to deal with rapidly changing military force requirements?

2. Can the Five-Year Force Structure and Financial Program be modified to better accommodate limited war requirements?

3. Have the controls built into the Programming System resulted in a defense budget too inflexible to cope with significant and unforeseen contingencies?

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By SAMUEL JOHNSON, Esq. of the Middle Temple, Barrister at Law.
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INTRODUCTION

When Robert S. McNamara was sworn into office as the eighth Secretary of Defense on January 22, 1961, he was instructed by President John F. Kennedy to develop the force structure necessary to our military requirements without regard to arbitrary budget ceilings and to procure and operate this force at the lowest possible cost.

To accomplish the second of these charges, McNamara brought to bear many scientific approaches to decision making. Among these was an approach advocated by the then Assistant Secretary of Defense (Comptroller) Charles J. Hitch, relating military programs to the sequence of annual budgets in an attempt to facilitate meaningful long-range planning. Such a budget was submitted to the Congress for the first time in January, 1962. It utilized program terms to interface military planning with the budget functions.

Since implementation, this method of budgeting for military requirements has allowed defense managers to determine more methodically the courses of action and time-phased military force requirements necessary to accomplish their overall missions. This new planning-programming-budgeting concept provides greater economy since the budgetary systems required may be developed while taking advantage of the cost-utility analyses which provide maximization of a specified cost, or the attainment of a required objective at a minimum cost.

With the approach taken by McNamara and Hitch came the Five-Year Force Structure and Financial Program (FYFS&FP). The FYFS&FP functions to record and explain all major details of service forces and weapon systems for the next five years. This summation of all Department of Defense approved programs and program elements serves as a central reference. In addition, it enables effective decision making by itemizing the total cost of embarking on any project. Utilization of the FYFS&FP made it possible, for the first time, to see the proposed defense force costs as compared with the overall mission. Each major program is divided into elements so that the total operating costs are estimable by a knowledge of the mission, the equipment, and the personnel needs involved.

Planning/programming of this nature is now essential. The present range of choices has become too broad and the quantity of alternatives too numerous for any lesser control. The Five-Year Force Structure and Financial Program has proven to be such a successful tool in defense decision making that President Lyndon B. Johnson has directed the introduction of an integrated planning-programming-budgeting system within nearly all departments and agencies of the Executive Branch.

Chapter I introduces the economic theory governing responsible defense actions and the environment within which the present and continued funding requirements must be met. These requirements evolve as a direct result of national defense policy. Chapter II introduces the Department of Defense Programming System and the intended purpose of the FYFS&FP.

Presented in Chapter III are the programming and budgeting procedures currently applied within the Department of Defense and the effects these procedures have upon the individual military services. Chapter IV presents the conclusions drawn from this study and recommended areas of further study. To assist the reader uninitiated in the technical jargon of the comptroller, a glossary of frequently used terms with their general usage in this paper has been placed in the Appendix.

The following is a list of the names of the persons who have been
admitted to the office of the Secretary of the State of New York
since the 1st of January 1880. The names are arranged in alphabetical
order of the surnames. The names of the persons who have been
admitted to the office of the Secretary of the State of New York
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CHAPTER I

THE ECONOMICS OF DEFENSE IN THE AGE OF LIMITED WAR

Ever since our unilateral disarmament at the close of World War II failed to produce a lasting peace, the United States has been forced to maintain a diversified military capability and to engage in military efforts unprecedented in alleged times of peace. The intricacies of modern technology seem to have made present-day warfare more science than art, the only factor remaining constant being the knowledge that these implements of defense must ultimately be paid for by the citizenry.

The past decade has seen the pendulum swing from the cutback of military spending to the proliferation of weapons during a heavy spending arms race against communism. Momentum again returned, and by 1958 it had become increasingly evident that tactical atomic weapons would cancel themselves out. The proponents of balanced forces realized that modern technology made it impossible to secure a long-range advantage through stockpiled weaponry. Throughout 1959 and 1960 an increasing number of debates regarding strategies took place. In 1961, at the advent of the McNamara regime, the Administration returned to a closer scrutiny of defense spending.

With the establishment of strong and aggressive civilian leadership in control of the military, considerations other than those foremost in the minds of military planners were brought to bear. Perhaps it was inevitable that, as our nuclear arms capability grew to create a strategic stalemate, we should see more clearly the implications that could ensue. National leaders have come to realize that not only are total resources at the disposal of the nation limited, they are exceedingly difficult to use effectively.

The Allocation of Resources

The law of supply and demand serves as the natural determinant of utility in the private sector, with profit used as a measurement of overall performance and efficiency. Money functions as the common denominator of the private markets. Resources may therefore be readily reduced to quantitative terms.

The mechanics of resource utilization are not nearly this clear-cut in the public sector. When the government purchases goods and services, it allocates resources between these two sectors according to the preferences of its citizens.¹ In actuality, this process reduces private purchasing power. As a result, a portion of the total resources available is channeled into public consumption through appropriations enacted in The Budget of the United States. Because profit is not used as an indicator within the public sector, other means must be found to indicate the adequacy of the outputs.

¹David J. Ott and Attiat F. Ott, Federal Budget Policy (Washington: Brookings Institution, 1965), p. 80.

The fact that governmental activities are organized in accordance with the budget principle means that the objective test of efficiency which is ever-present in the market economy is lacking here. There are no tangible and self-enforcing criteria for judging efficiency in the public sector; in fact, there is a great deal of fuzziness in the use of terms in connection with governmental activities.¹

Despite our affluence, we are a nation of unfilled needs, and both the public and private sectors of our economy can benefit from the application of additional resources to areas such as education, health, and transportation. It was consequently determined that the resources ultimately to be used for defense endeavors must not merely be satisfactorily allocated, but they must be applied to the optimum alternative available. This optimization may take one of two forms:

1. If our need is for a given level of utility or military effectiveness, the alternative (or combination of alternatives) must be found which accomplishes the task at minimum cost.

2. When the limit of the budget is constrained, it becomes necessary to find the alternative (or combination of alternatives) which maximizes effectiveness.²

In judging which alternative adds the largest increment of utility, a tangible reference is provided by which to measure the efficiency of resource and force utilization. This method for allocating scarce resources among

¹Jesse Burkhead, Government Budgeting (New York: John Wiley & Sons, Inc., 1959), p. 35.

²G. H. Fisher, Analytical Support for Defense Planning, Paper P-2650 (Santa Monica, Calif.: The RAND Corporation, October, 1962), p. 3.

alternative uses has come to be called "systems analysis." The same economic theory was used during World War II under the term "operations research" with the exception that systems analysis conceptually involves more complex problems, problems which reach five to ten years into the future and problems specifically concerned with development and procurement. Systems analysis is much like cost effectiveness except that the systems analyst usually deals in problems of what ought to be done, not how it shall be done. Greater emphasis is therefore placed on the suitability of the task and the choice of alternatives.¹

It is easy to see at this point how the economics of defense took a dominant position as the McNamara regime demanded more reliance on the scientific approaches to management of the public sector. Forced to conform to the budget as a control device of government, defense managers began to make this same budget serve them as an efficient instrument of decision making. By restating the explicit cost of all projects in quantified terms, it became possible to program for future objectives with an accurate projection of their total cost and an estimation of whether they could be done within the limits of the existing appropriation categories and whether the most efficient manner had been chosen to accomplish the required results.

Historically speaking, this period of regrouping and consolidation was a fundamentally stable era. The United States was engaged in more than a

¹ Chauncey F. Bell, Cost-Effectiveness Analysis as a Management Tool, Paper P-2988 (Santa Monica: The RAND Corporation, October, 1964), p. 2.

normal share of crises, such as Berlin, Formosa, Suez, and Cuba; but these were relatively short lived and did not seriously upset the overall plan of our expanding economy. Upon occasion there was heard the usual cry of waste and inefficiency; by and large, however, our defense machine had never known such economies. The planning for our military requirements was carried out with the sure and effective progress of informed decision making.

Warfare and Deterrents--Considerations for Defense Policy

The problems of national security, or defense policy,¹ are becoming increasingly complex. The new concepts of war and strategy, the long lead times, the high cost of support and weapon systems, the rapid technological advances, the interaction of military missions, and the magnitude of the potential enemy threat have all contributed to making national security decisions more difficult than ever before.² Complexity adds to the burden of study and analysis required for informed decision making, just as the penalties of war itself make attention to the problem necessary as never before.

Today our national security has come to be shaped by the possible challenges which confront us. Looking specifically at enemy threats, one sees three standing out most starkly. These are: all-out war, limited war, and a type of war new to the twentieth century but highly developed by the

¹Refer to Wesley W. Posvar et al., American Defense Policy (Baltimore: The Johns Hopkins Press, 1965), p. ix ff.

²G. H. Fisher, The New OASD (Comptroller) Programming/Budgeting Process, Research Memorandum RM-3048-PR (Santa Monica: The RAND Corporation, March, 1962), p. 1.

communists--the obscure war concealed as internal subversion or takeover by coup d'etat.¹ A brief study of these factors constituting our general environment will serve to set the stage for the analysis of the problems within this setting.

All-out War

Unlimited war poses the greatest threat to national security. This can be envisioned as the ultimate war where no constraints would be applied to weaponry or targets. This war, therefore, must be prevented; yet the basic requirements for a retaliatory force alone can easily overcome any defense budget capability. The preparedness for all-out war depends upon a suitable mix of: (1) a retaliatory force so powerful that the attacker must content with a retaliation of estimable damage; (2) an active defense which will assure the survival of some portion of the retaliatory force as well as reduce the effect of damage on population and the economy; and (3) a passive defense that afford some protection to population and the economy.² Though all-out strategic war is the cause of our greatest defense requirement, we, as a rational people, would wish to believe that it no longer represents the foremost threat. Equivalent nuclear strategic striking forces have made the alternatives of economical mass destruction seem marginal.

¹Rockefeller Brothers Fund, Inc., International Security--The Military Aspect, Report II (Garden City, N. Y.: Doubleday and Co., Inc., 1958), p. 20.

²Ibid., pp. 20-21.

Limited War

Known by many names, the small war, the brush fire war, and insurgency, this action has recently ranged from Cuba to Cambodia. Osgood stated that "two basic, historically unique conditions encourage limited war: a deep conflict of aims and interests between nations that hold a predominance of world power, and a terrifying capability of the two antagonists to destroy each other."¹

Mobilization for a limited war cannot be conducted within the same guidelines as for a general war. Limited war does not consist of a single, all-demanding economic effort to preserve human rights; rather, it is primarily political and waged with specific restraints. It may be limited in terms of geography and not of weapons or targets within the combat area. This results in a high-order conflict with the possibility of small nuclear weapons being employed. Or it can be stringently limited, with respect to weapons and targets, and follow the pattern of a low-order confrontation. Limitation may apply in some respects and not in others, or even to one of the belligerents with the exclusion of the other. Limited war is fought depending upon the scope of the objectives of the warring powers and upon the forces used to achieve their own objectives while depriving the enemy of his.² The key lies in the objective limits, but includes political, ideological, economic,

¹Robert E. Osgood, Limited War, The Challenge to American Strategy (Chicago: University of Chicago Press, 1957), p. 24.

²Ibid., p. 2.

and logistical components, in addition to the military and technical ones.¹

Limited war in the Dictionary of United States Army Terms is defined as "armed conflict short of general war, exclusive of incidents, involving the overt engagement of the military forces of two or more nations."² In order to begin to combat war actively under such conditions, it becomes necessary to have: (1) a defense force capable of limited conventional or limited nuclear war at any time or place and under any conditions; (2) adequate military manpower to meet any demands; and (3) the logistical capabilities necessary to move either with great speed or with great quantities over a variable range of distances.

Counterinsurgency

The third threat against national security is that of internal subversion or counterinsurgency (COIN). This is more than just a military problem inasmuch as it includes political, economic, civil, and psychological components which become difficult to combat on a national level. This fact is brought clearly into focus by the present Viet Nam conflict, which, from its inception, has been as much political as military, as much economic as military, and as much psycho-social as military.³

¹M. G. Weiner, The Role of Operations Research in Planning for Limited War, Paper P-2654 (Santa Monica: The RAND Corporation, October, 1962), p. 4.

²Dictionary of United States Army Terms (Washington: Headquarters, Department of the Army, AR-320-5, February, 1963), p. 216.

³"The War in Viet Nam," The National Guardsman, XIX, No. 12 (December, 1965), 14.

One of the greatest threats to the security of the Free World is gradual Soviet infiltration and domination of vital areas through steps each of which is so small and seemingly so insignificant that it does not seem to justify overt intervention.¹

The gradual subversion of a government by concealed foreign penetration is difficult to deal with. Carefully disguised wars may appear as an internal revolution or civil war, while in reality they may be instigated and exploited by outside forces. As a result, a clear understanding of our national purpose must be maintained. Military and economic aid should be provided to the more vulnerable allied countries where these forces are, or could be, at work.

Limited Resources and Alternative Choices

It rapidly becomes evident that not even a diversified military establishment can afford protection from the total range of inherent dangers. It becomes economically infeasible to provide funding for the requirements necessary to maintain merely adequate national defense policy in this uncertain era. Much effort was given to the development of this philosophy by Charles J. Hitch and Roland N. McKean in their work, The Economics of Defense in the Nuclear Age. Since this subject has also become the thesis of subsequent works by Hitch and other members of the RAND Corporation,² it is sufficient to conclude that:

¹Rockefeller Brothers Fund, Inc., op. cit., p. 24.

²A brief history of the RAND Corporation is presented in the Editor's Special Report: "Planners for the Pentagon," Business Week, July 13, 1963. A more complete analysis is made by Saul Friedman, "The RAND Corporation and Our Policy Makers," The Atlantic Monthly, September, 1963.

No country can defend itself fully against all possible external threats. It takes certain risks with respect to defense for the sake of increasing the domestic welfare of its citizens. It must also compromise between the present and the future. The more actively it promotes defense and welfare at the present time, the more it may (under certain conditions) retard the long-run economic development of the country, by curtailing both private and public investment in the future.¹

It would seem entirely logical to assume that our forces for all-out war should prove useful in limited war; but it is dangerous to rely too heavily on strategic strike forces to fight a limited war. Deterrent forces must be kept in a state of highest readiness during periods of limited conflict to maintain this overall retaliatory sanction. An aggressor who can inflict substantial attrition on our strategic striking forces in limited war will gain an advantage regardless of the limited engagement's outcome.² Realizing that this is an added penalty of limited war, we must be particularly aware of the warning which the history of war indicates with frightful clarity.

In judging the present prospect of limited war the most obvious relevant fact is that, in spite of the vast potentialities of unlimited war, the period since World War II has actually been a period of limited war.³

Defense Considerations for Limited War

Considering the preceding statement and the present international situation, there is cause for a more discerning look into the relevance of

¹ The RAND Corporation, Program Budgeting . . ., ed. David N. Novick (Washington: Government Printing Office, 1965), p. 2.

² Rockefeller Brothers Fund, Inc., op. cit., p. 23.

³ Osgood, op. cit., p. 123.

limited war. Although the difference between limited war and total war is partly a matter of degree, the distinction is clear enough in practice to have significance for national policy. "The distinctive feature of limited war is that its outcome does not involve or seem to involve national survival."¹ This is why it is hard to deal with. Does any particular move raise doubts whether this particular encroachment warrants a final showdown?² Limited war does not demand that all human and material resources, save for subsistence, be mobilized against the enemy. It remains a question of morality and expediency, with a feasible strategy based upon a conception of limitations acceptable to national strategy. It is geographically confined and permits economic, social, and political patterns of existence to continue without serious disruption. It does not even demand the utmost in military effort of which the forces involved are capable.

Because these components constitute the essence of limited war, it is easily misunderstood by those who are not either actively engaged in the fight for life or are responsible for the national defense policy. This excerpt from Limited War--The Challenge to American Strategy clarifies the issue:

The rational use of military power requires a strategy capable of achieving two primary objectives: (a) the deterrence of such major aggression as would cause total war; (b) the deterrence or defeat of lesser aggressions, which could not appropriately be met except by means short of total war. To deter total war, the United States must convince potential aggressors of two things: first, that it can subject

¹ Rockefeller Brothers Fund, Inc., op. cit., p. 23.

² Ibid.

them to destruction so massive that they could not possibly gain any worthwhile objective from a total war; second, that it will employ this kind of retaliation against aggression so threatening as to be equivalent to an attack upon the United States itself. To deter or defeat lesser aggressions the United States must convince potential aggressors--and demonstrate if necessary--that it is willing and able to conduct effective limited warfare. Unless the nation can also wage limited war successfully, communist aggression may force the United States to choose between total war, non-resistance, or ineffective resistance.¹

Structured in less subtle and more succinct terms, this means that force is useless, without a resolution to use it.

But even with a resolution to use our force, America is powerless to do so without the necessary funds and a flexible budgetary system. National security programs depend upon the financial resources and the manner in which they are applied. Because of the significance of national security, all eyes turn to the Pentagon to view the methods of the budgetary process within the Department of Defense.

¹Osgood, op. cit., p. 1.

CHAPTER II

PLANNING - PROGRAMMING - BUDGETING IN THE DEPARTMENT OF DEFENSE

The Program Budget Arrives

Budgeting on a Functional Basis

Prior to management by program, the Department of Defense exercised financial management through use of the functional budget as considered by Congress. The Congressional format consisted of the time-honored appropriation categories of military personnel, operation and maintenance, procurement, research and development, and military construction. These same classifications have been used in the annual defense budget which traditionally serves as the means for the allocation of resources through the DOD to the services in support of military activities.

This budgetary formulation left much to be desired from the standpoint that functional categories did not "focus on the key decision-making areas which were of principal concern to top management in the Defense Department."¹ Hence, a lack of objectivity in long-range planning resulted. Continuity could not be assured when the Congress was apt to have more enthusiasm for recent innovations than for support of planned courses of action,

¹Charles J. Hitch, "Management of the Defense Dollar," The Federal Accountant, XI (June, 1962), 34.

or when the rotation of principal military budget personnel gave rise to continually shifting impetus.¹

As modern weapons became more complex and costly, requiring longer periods to develop, weapon systems became the key decision areas in the overall defense program. Effective decision making required relevant and precise data.² By relating accurately costed weapon systems, and the forces needed to employ them, to their mission effectiveness, a proper comparison of alternatives based upon estimated future performance became feasible. Information of this preciseness could not be provided by the then existing financial system.

It was evident that the financial system needed to be reconstructed if it was to provide the quantitative data needed to support critical decisions.³ These are the decisions of force levels and weapon systems selection that also involve the composition of all military units. Yet, this restructuring could not be fundamentally too different.

. . . The financial management system of the Defense Department must serve many purposes. It must produce a budget in a form acceptable to the Congress. It must account for the funds in the same manner in which they were appropriated. It must provide the managers at all levels in

¹Department of the Navy, Office of the Chief of Naval Operations, The Navy Programming Manual; Part I, Programming Overview, OPNAV 90P-1 (September, 1964), p. 2-1.

²Charles T. Horngren, Accounting for Management Control: An Introduction (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965), p. 324.

³Hitch, The Federal Accountant, XI, 35.

the defense establishment the financial information they need to do their particular jobs in an effective and economical manner. It must produce the financial information required by the other agencies of the government--the Bureau of the Budget, the Treasury, and the General Accounting Office.¹

A Program Basis for Control

The term "program" has been used in many ways which differ from the connotation it was given by the Department of Defense in 1954. Here it provides a means of combining the related defense activities (such as manpower, equipment, installations, and supplies) for a military mission. Program budgeting is the integrated planning-programming-budgeting process which brings together all the resources applied to specific missions. The program budget procedure serves two primary functions: (1) It permits analysis of total force structure for all military services in terms of common missions (national objectives); and (2) it projects the resources, or financial requirements, of these force structures over an extended period of years.²

Through the use of the Programming System, it is now possible to place the Navy's POLARIS weapon system in juxtaposition with other similar elements of the Strategic Retaliatory Forces, such as the ATLAS, TITAN, or MINUTEMAN. It is no longer necessary to have the POLARIS competing for

¹ Charles J. Hitch, Decision Making for Defense (Berkeley and Los Angeles: University of California Press, 1965), p. 28.

² David Novick, Program Budgeting in the Department of Defense, Research Memorandum RM 4210-RC (Santa Monica: The RAND Corporation, 1964), p. 7.

funds under the appropriation title of Military Construction, Navy, at the expense of additional aircraft carriers. Planning can be done in terms of the missions, forces, and systems which are the products of defense expenditures. By cutting across the traditional service boundaries with major programs and the elements which constitute them, the program budget approach has provided much firmer footing for the ultimate decision maker.¹

Programs may be formally reviewed more frequently and with far greater ease than was previously possible during the annual budget review.

. . . The programming system should make the annual budget review more orderly and thorough. Since the basic program review will have been accomplished prior to budget review, only minor program adjustments should be needed during the budget season. This should permit the accomplishment of a better budget review, in that more time will be available for analysis . . . and numerous other considerations involved in preparation of the annual budget.²

The Department of Defense Programming System also provides a planning base upon which can be spread an array consisting of the whole aggregation of weapons and support systems. Such a display shows force levels for eight years beyond the current year and program costs for five years beyond the current year.³ Thus depicted, military objectives can be viewed over an extended range of time, which serves to ensure that a proper mix is at hand to carry out the previously conceived missions. This is useful not only to

¹Ibid., p. 8.

²U. S. Department of the Navy, Office of the Comptroller, Program Change Control System in the Department of the Navy, NAVEXOS P-2416, August, 1962, p. 1-6. Cited hereafter as NAVEXOS P-2416.

³Department of Defense Directive, DOD Programming System, No. 7045.1 (October 30, 1964), 2.

the Secretary of Defense, but to the planners and executives of the military departments. Changes to this base are made only by the Secretary of Defense (or the Deputy Secretary of Defense). Changes are made only after an assessment that the proposed change represents a more satisfactory means of meeting the planned objective in terms of cost effectiveness. The purpose of the Programming System is "to aggregate these units in a manner which is meaningful and convenient for top-level decision making."¹ The transition from purpose to program management has assured the controllability that provides for the requirements of informed decision making.

With all of its many advantages, program budgeting should not be considered a budgetary panacea. There are problems which still confound those involved in daily operation of the system. Accounting for costs over longer periods of time is just one of such problems.

All things considered, the FYFS&FP has become the backbone of the Programming System and is the principal method by which McNamara asserts himself in military affairs. Hitch was brought in to do the planning. His successor, Robert N. Anthony, wants to establish cost-based operating budgets to "close the loop."² This chapter presents the program budget in terms of Hitch's objective.

¹U. S. Department of Defense, Programming System for the Office of the Secretary of Defense, Study report prepared by the Office of the Assistant Secretary of Defense (Comptroller), May 31, 1962, p. I-1.

²Philip L. O'Connell, Associate Director, Financial Services, Office of Navy Comptroller. Presentation for the Navy Graduate Financial Management Program at The George Washington University, January 10, 1966.

The Concept of the Programming System

The Objective

The establishment of a Program Budgeting System within the Department of Defense can be thought of primarily as a management effort. Its goal is to provide a unified defense program planned ahead for five years. This length of time is "short enough to make possible reasonably accurate estimates and long enough to provide a good approximation of the full costs."¹ Under ideal conditions, such a management system should reveal the total costs over the projected life span of a weapon system. Because of the inherent difficulty of long-term cost projection, five years was considered a comparatively desirable time frame. It facilitates decision making for the Secretary of Defense by relating costs and effectiveness for the entire range of military weaponry.² It reveals how much defense per dollar the United States is buying, and because of this fact the Five-Year Force Structure and Financial Program has become the "heart" of the Programming System.

With economy serving as the key to efficient government operation, the major objective of the Programming System has been to attempt to close the "gap" between the planning and budgeting functions. (Refer to Table 1.) The means to enable this are:

1. A program structure in terms of missions, forces, and weapon and support systems.

¹ Hitch, The Federal Accountant, XI, 35.

² NAVEXOS P-2416, p. 1-1.

Planning/Programming	Budgeting
Major concern is with alternative ways of attaining national security objectives:	Major concern is with functional categories:
Total force structures	Procurement
Weapon/support systems	Construction
Modes of employment and deployment of forces	RDT&E
.	Military Personnel
.	Operations and Maintenance
.	
etc.	
Long time horizon--5, 10, or more years into the future	Short time horizon--the next fiscal year
Emphasis on "end product" activities	Emphasis on purely <u>fiscal</u> matters
Missions	Obligations
Forces	Reimbursements
Systems	

Objective:

Provide a device for
integrating the two

Source: G. H. Fisher, The New OASD (Comptroller) Programming/Budgeting Process, op. cit., p. 6.

TABLE 1. --Integration of the planning/programming and the financial management functions

2. The analytical comparison of alternatives.
3. A continually updated five-year force structure and financial program.
4. Related year-round decision making on new program changes.
5. Progress reporting to test the validity and administration of the plan.¹

Such a system would be geared to continuous program decision making and not just to the annual budget cycle. A process would exist whereby military force requirements could be translated into budget requests. Hopefully, a decision to embark on a project becomes the decision to provide the funds to carry it out.

The Functions

The purposes of the Program Budget System as it was conceived were to improve management and to show what the government is attempting to accomplish. Since the allocation of resources is essentially a political process, a system was required to gather and analyze data on the national objectives. Program budgeting begins with the structuring of the data and concludes with cost-utility analysis that compares this utility (outputs) with the cost of the resources (inputs). The total resource inputs are arranged so the comparison of alternatives is meaningful.²

¹The RAND Corporation, op. cit., p. 57.

²Ibid., p. xii, passim.

The main advantage claimed for the program budget process over that of the present budget is that it is designed in relation to the decision process and helps to make it more effective by clearly defining the alternatives among which choices must be made, and creating an information system that permits analytical appraisal of costs in relation to expected benefits.¹

The end product of these objectives and functions has been the combining of:

. . . the planning/programming and the financial management functions in order to provide better tools and information for decision making by the Secretary of Defense and his military advisor. This is done in such a way that budget decisions will be program decisions, and program decisions will be budget decisions.²

A sound basis has now been provided for the preparation of the annual budget. By keeping the current budget and the programs in alignment, it is possible for the Secretary of Defense to ensure that various programs are achievable as current commitments are assigned.

The Budgeting Concept

The program budget procedure leaves the traditional fiscal budget unchanged. While the Congress has expressed interest in program budgeting and has been duly impressed with the command over technical data that it has given, the point has been clearly registered that the traditional budget format should remain unchanged. Planning and programming may control the substance of the budget but not its form. After the Secretary of Defense has made his decisions in program terms, these decisions are reconstructed

¹Ibid., pp. 220-221.

²Fisher, op. cit., p. 5.

into the conventional budget format.¹ Table 2 demonstrates how correlation is possible between the budget by appropriation title and the FYFS&FP for the Department of the Navy.

Appropriations committees have been working with these same categories for more than a decade and have established a historical pattern for forming judgments as to the validity of requests. The democratic processes of budget review within the committees remains by nature incremental, fragmented, non-programmatic, and sequential.² There have been many statements by the Congress and particularly by the Appropriations committees that a change to the basic budget process will not be acceptable.³ While these statements indicate that the legislators are not in favor of a change in the traditional format, none states why in such explicit terms as the following:

The tradition of reform in America is a noble one, not easily to be denied. But in this case it is doomed to failure because it is aimed at the wrong target. If the present budgetary process is rightly or wrongly deemed unsatisfactory, then one must alter in some respect the political system of which the budget is but an expression. It makes no sense to speak as if one could make dramatic changes in budgeting without also altering the distribution of influence.⁴

¹The RAND Corporation, op. cit., p. 67.

²Aaron Wildavsky, The Politics of the Budgetary Process (Boston: Little, Brown and Co., 1964), p. 136.

³See House of Representatives Report No. 1607, 87th Cong., 2d Sess. (House Appropriations Committee Report on the Fiscal Year 1963, Department of Defense Budget, April 13, 1962), pp. 4ff.

⁴Wildavsky, op. cit., pp. 131-132.

Program/Financing	Total	Military Personnel		Reserve Personnel	
		Navy	M. C.	Navy	M. C.
Program					
Strategic Retaliatory Forces	782.6	84.3	.5	-----	----
Continental Air and Missile Defenses	18.3	1.7	-----	-----	----
General Purpose Forces	11,810.7	1,942.1	590.6	-----	----
Airlift and Sealift Forces	136.9	22.5	-----	-----	----
Reserve and Guard Forces	409.7	81.3	18.8	105.1	35.2
Research and Development	1,099.4	57.4	.4	-----	----
General Support	3,511.3	1,164.7	290.6	-----	----
Plus: Military Pay Increase	241.3	189.8	44.9	4.9	1.8
Total - (TOA):	18,010.2	3,543.8	945.8	110.0	37.0

Note: The Department of the Navy has no elements in Program VIII.

Source: U. S. Department of the Navy, Office of the Comptroller, Budget Digest, Fiscal Year 1966, NAVSO P-1355, November 30, 1965, pp. 40-41.

TABLE 2. --Correlation between the budget by appropriation title and the Five-Year Force Structure for Fiscal Year 1966, for the Department of the Navy

Operation & Maintenance		Procurement		RDT & E	Military Construction	
Navy	M. C.	Navy	M. C.	Navy	Navy	Navy Reserve
328.5	-----	247.8	-----	121.5	-----	---
14.6	-----	.9	-----	1.0	-----	---
1,785.3	107.0	6,428.3	-----	330.5	150.4	---
37.7	-----	76.6	-----	-----	-----	---
89.6	5.3	38.6	26.2	-----	-----	9.5
21.2	-----	33.7	-----	975.5	11.2	---
1,356.3	111.0	317.9	6.5	12.2	252.2	---
-----	-----	-----	-----	-----	-----	---
3,633.3	223.3	7,143.9	509.2	1,440.6	413.8	9.5

\$ Millions

Although the President has the authority to propose his budget in any form he may choose, it is the Congress that determines how the funds will be appropriated and, therefore, how they will be accounted for. Fortunately, one of the virtues of the Programming System is that it does not require a change in the budget format.

The Structural Components of the Programming System

Programs and Program Elements

The Department of Defense Programming System currently consists of eight major programs which are combinations of activities having common missions. Each individual program represents a related group of program elements considered together for decision purposes because they either support one another or are close substitutes.¹ Major programs represent the primary mission to be performed.

Table 3 shows the eight major programs with representative examples of the elements comprising them, fitted to the mission-oriented military requirements of the Defense Department in support of overall defense policy. Table 4 shows these same programs relating the mission of National Defense Policy to the traditional budget format through the flexible program elements.²

¹Hitch, Decision Making for Defense, p. 34. A more complete discussion of the composition of the major programs may be found on pp. 35-38.

²During the first week in January, 1966, 1,087 of these program elements provided a common denominator for alternatives incorporated into the FYFS&FP.

Threats Recognized by National Defense Policy	DOD Mission- Oriented Military Tasks	Eight Major Programs of the Five-Year Force Structure	Program Elements
All-out War	Retaliatory Force	I. Strategic Retaliatory Forces	(a) Manned bomber forces (b) Missile forces, land (c) Missile forces, sea
	Active Defense	II. Continental Air & Missile Defense Forces	Active-Interceptor A/C, SAM's
	Passive Defense		Passive-ICBM warning, Radar Antisatellite defense
Limited War	Defense Force	III. General Purpose Forces	Force for General, Limited (or local) War
	Logistic Capability	IV. Airlift and Sealift Forces	A/C and Ships for theater needs
	Adequate Manpower	V. Reserve and Guard Forces	Inactive portions of Programs II, III, and IV
Counter Insurgency	Military Aid	VIII. Military Assistance Program	Equipment and training for Allied Nations
	General Support Activities	VI. Research and Development	R. D. T. & E. not directly included in other programs
		VII. General Support	Any elements not directly included in other programs

TABLE 3. -The Five-Year Force Structure--A means of relating military resources to support decision making for mission-oriented military tasks

Source	Input--Appropriation Accounts	Secondary Fitting	Initial Fitting	Output
Congressional Budget Appropriations	Military Personnel			
	Operations and Maintenance			
	Procurement	Program Elements *	Eight	National
	Research, Development, Test, and Evaluation	for Costing	Major Programs	Defense Policy
	Military Construction (Supplemental Defense Appropriations)	and Flexible Composition	(Relatively Stable)	

* - The program budget is a tool by which the needs of the Nation may be analyzed. Program elements act as a common denominator for the 1090 alternatives incorporated in the Five-Year Force Structure and Financial Program as of January, 1966.

TABLE 4. --The Programming System--conversion of Inputs to Outputs

Program elements are defined as integrated activities--the combinations of men, equipment, and installations whose effectiveness can be related to our national security objectives.¹ The purpose of the program element is to package these units so that they may be meaningfully presented to the decision maker. For purposes of illustration: The U.S. POLARIS missile, with its associated fleet ballistic missile system, is an element within the aggregation titled Missile Forces, Sea Based, and this in turn makes up a portion of the major Program I--Strategic Retaliatory Forces. Through the weapon system elements, such as POLARIS, or through elements consisting of force units, the means are provided by which missions are accomplished. The total of all program elements constitute the entire defense establishment.

Cost Analysis and Cost Categories

The program element serves its basic function in permitting cost-utility (cost-effectiveness) analyses. The entire programming problem seems to rest on the preciseness of element costing. Unless the individual figures for research and development, investment, and operation of the element can be accurately foretold, the most economical or efficient means for completing a mission cannot be known. The array of alternatives must be uniformly and completely costed in these terms to provide meaningful choices among elements, programs, or program changes.

¹NAVEXOS P-2416, op. cit., pp. 2-3.

The question of the proper distribution of support activity costs has been particularly troublesome. While these costs are not output-oriented, they must be allocated to the proper program elements. When one operating base provides services to more than one force unit, support costs must be correctly divided between them. Without a reliability in cost distribution, one cost analysis cannot be compared with another.¹

Within the Program Budget structure, planning decisions are made after comparing projected costs and effectiveness of feasible program choices. In such comparisons, a methodical examination of alternatives is made in terms of quantitative estimates of cost and of the expected military benefits ("effectiveness") to be derived from the systems.²

Programming needs a knowledge of the dollar requirements for meeting manpower, materiel, and facility needs. The Office of the Secretary of Defense (OSD) therefore requires that the cost of each element be submitted to cover five-year periods, and that these data be broken down in the following ways:

1. By total obligational authority and expenditures.
2. By appropriation account and budget title, in line with the present budget structure.
3. By the three broad categories of costs: research and development, investment, and operations.³

¹Novick, op. cit., pp. 12-16.

²Ibid., pp. 15-16.

³NAVEXOS P-2416, op. cit., pp. 2-9.

With adequate costing representing such an essential skill, it is necessary to further define each of these program cost categories.

Research and Development--those program costs primarily associated with research and development efforts, including the development of a new or improved capability to the point where it is ready for operational use. These costs include equipment costs funded under the RDT&E appropriations and related military construction appropriation costs. . . .

Investment--those program costs required beyond the development phase to introduce into operational use a new capability, to procure initial, additional or replacement equipment for operational forces or to provide for major modifications of an existing capability. They include procurement appropriation costs except those associated with the operating category defined below, and all military construction appropriation costs except those associated with research and development. . . .

Operating--those program costs necessary to operate and maintain the capability. These costs include military personnel, operation and maintenance and recurring procurement appropriation costs (such as replenishment spares). . . .¹

The total cost would be the sum of the three program cost categories as is represented in Figure 1. The total cost projection arises as each of the cost categories is shown in the time schedule in which they would likely occur. This provides the cumulative cost of the program element for its effective life.

It must be remembered that costing is done on the basis of a peacetime preparation for war or deterring war. Interests are mainly on peacetime, not wartime, costs. Efforts are directed toward utilizing the resources available for national security in peacetime.²

¹ U. S. Department of Defense Directive, DOD Programming System, No. 7045.1, October 30, 1964, pp. 3-4.

² Charles J. Hitch and Roland N. McKean, The Economics of Defense in the Nuclear Age (New York: Atheneum, 1965), pp. 169-170.

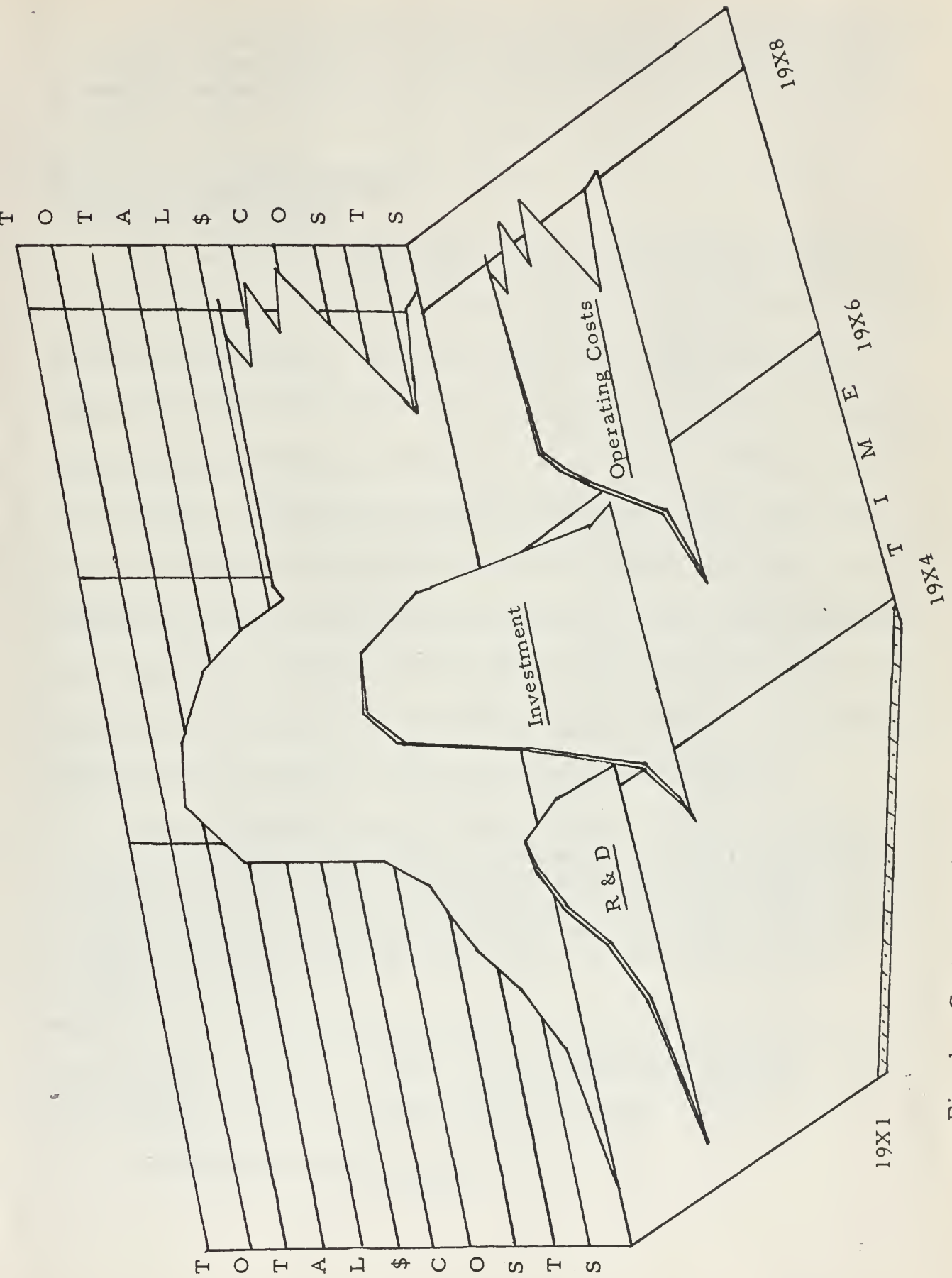


Fig. 1.--Cost categories and program element cost projection over effective life

In principle, the wartime costs are relevant. In practice, we can frequently ignore them. . . . The major economic problem is to maximize the capability of these forces by using resources efficiently before the war starts . . . ¹

The Five-Year Force Structure and Financial Program

The combination of elements, programs, and forces arranged over five successive fiscal years as formally approved by the Secretary of Defense comprises the FYFS&FP. All of the program data with the accompanying description of the forces, their tasks, and missions is binding for programming purposes on each of the military services. ² It was initially intended that all program information be updated every other month. ³ This would enable the FYFS&FP to remain a continuously effective document, capable of forming the backbone of the Defense Department's annual budget submission. When budget time arrived, the first-year increment of the Five-Year Force Structure and Financial Program would be taken as the base to determine the financial requirements to be stated in the annual defense budget. ⁴

Except in unusual instances, new programs will not be introduced in the presentation of the budget, and financial envelopes or budgetary limitations will no longer be established at the time of the budget call. The budget activity point of view for programs which have already been approved and whose total tentative financial requirements are known through the updated version of the "Five Year Force Structure and Financial Program." ⁵

¹ Ibid., p. 170.

² Hitch, Decision Making for Defense, p. 33.

³ Ibid., p. 34.

⁴ The RAND Corporation, op. cit., p. 63.

⁵ NAVEXOS P-2416, op. cit., p. 3-1.

To display long-range implications and to provide a basis for financial management support, the DOD Programming System uses the FYFS&FP to provide a planning horizon projected ahead eight years in terms of force structure and five years for financial levels. The approved FYFS&FP is also the base for submission of proposed program changes. In order to maintain the FYFS&FP in an up-to-date status, it is necessary to incorporate a continuous review process. The Program Change Proposal System was developed to help attain this objective.

Program Change Proposal System

In order to provide flexibility in the FYFS&FP, a formal change proposal system was introduced. This enables the dynamic changes often required in military operations. The Program Change Proposal (PCP) System is a general mechanism of programming, decision making, and control. It affords the Department of Defense a systematic procedure for making additions, deletions, or modifications to the approved FYFS&FP at any time. Prior to its adaptation, program decisions were usually delayed until the time of the periodic budget reviews. Thus, the FYFS&FP with the PCP System has provided the mechanism for freeing program decisions from the annual budget cycle.¹

The PCP, as forwarded over the signature of the service Secretary for approval by the Secretary of Defense, contains fully developed proposals

¹The RAND Corporation, op. cit., p. 65.

with pertinent supporting data. The submission contains estimates of costs and effectiveness over a long time frame. Also included as an integral part of the paperwork are alternative considerations and possible trade-off items.¹

When a PCP is received by the OSD staff, the assembled information permits a review before it is forwarded to the Office of System Analysis for further evaluation. At this level it is possible to view competing systems in the interest of the total defense program without questions of service jurisdiction. All review and evaluation data, including controversy, are then forwarded with the comments of the Joint Chiefs of Staff as the PCP is presented to the Secretary of Defense.

A PCP may be submitted by a military department at any time. Such PCP's usually are the result of a major study conducted by the individual services and/or their research affiliates in the interest of furthering service program objectives. With the introduction of new program elements or with changes to the existing elements, each service hopes to enhance entity capabilities and further the long-range objectives established by its own leaders.

Any element which deviates beyond prescribed "thresholds" from the schedule and costs projected when the element was initially approved causes an additional PCP submission.²

¹Novick, op. cit., p. 22.

²The Navy Programming Manual, op. cit., pp. 3-6.

. . . When the assumptions of cost and progress upon which approval was based become seriously invalid, the system automatically brings the matter to the attention of the Secretary of Defense through "management by exception." Program slippages, cost overruns, or failure to meet reliability goals may change the character of the program to the degree that it is no longer the best on a cost-effectiveness basis, and reorientation or cancellation may be required.¹

A PCP may also be required as a result of program review at the OSD level with the request handed down through the Secretary's Tentative Force Guidance, generally occurring in May. Through this process it becomes possible for the Secretary to analyze the resource effects of tentative decisions.

When a change desired by a service is below the thresholds established by the Secretary of Defense, it may be approved by the Secretary of the Military Department concerned. However, such a change must be able to be met by existing funds.² Table 5 presents the current thresholds.

The Functioning of the Programming System

The Secretary of Defense provides guidance to the Secretaries of the Army, Navy, and Air Force and the Directors of the DOD agencies in matters of national security policies. As these officials establish policy within their own departments and agencies, the Joint Chiefs of Staff develop the

¹Ibid. Here "management by exception" refers to the fact that executive attention is not ordinarily concerned with results that conform with plans. When significant deviations do occur, these areas are disclosed for investigation.

²Ibid.

Category	First Program Year ^a	Total Program Cost/Quantity ^b
<u>Total Obligational Authority</u>		
<u>DOD Component Total</u>	Any increase	Any increase in any fiscal year
<u>Research and Development</u>		
New program elements in Program VI	Any	Any
Changes to program elements in Progr. VI	\$10 million	\$25 million
Changes to R&D category in program elements of other programs	\$10 million	\$25 million
<u>Investment</u>		
Approval for procurement and deployment of items	\$10 million	\$25 million for total force requirements
New items or projects to be added to:		
Materiel Annex	\$10 million	\$25 million
Construction Annex ^c	\$ 5 million	\$ 5 million
Changes to:		
Program elements	\$10 million	\$25 million
Materiel items	\$10 million	\$25 million
Construction projects ^c	\$ 5 million	\$ 5 million
<u>Operating Costs</u>		
Program elements	\$20 million	\$50 million
<u>Military Assistance Program</u>		
New country/non-country	Any	Any
Changes to total country/non-country programs	5% or 1 million in any year, whichever is greater	
<u>Manpower</u>		
Changes in total year-end military or civilian manpower spaces authorized for a DOD component	Any increase	Any increase
	<u>Any fiscal year</u>	
<u>Forces</u>		
Changes in forces contained in the latest approved FYFS&FP	Any	

^aDuring the first six months of the current fiscal year, the first program year is the budget year. During the last six months of the current fiscal year, the first program year is the budget year plus one.

^bTotal program cost includes first program year plus all subsequent progr. yrs.

^cFor military family housing construction projects, these thresholds are applicable to each DOD component total.

Source: DOD Directive 7045.1, October 30, 1964, p. 8.

TABLE 5 --Thresholds established by the Secretary of Defense

military objectives and plans to achieve the objectives. These plans assign missions and tasks for performance by the commanders in the field, in addition to specifying the necessary forces to carry them out over the next five years.

Setting the Stage

By means of mergers, consolidations, centralizations, and the creation of several new functions within his span of control, McNamara has not only given the Defense Department unification, but he has pulled it more closely about the office which he holds. From the beginning these actions left little doubt of his clear intention to use the Secretary's extensive powers to make decisions that were to have profound tactical and strategic consequences. As a result of his efficient management alignments, McNamara is conscious of, conversant with, and in control of every development regarding the defense of this nation.

Perhaps the most important aspect of this restructuring in the Pentagon was that of providing for the centralization of power as necessary to undertake the task of military financial management. Hitch soon provided the link between planning and budgeting to relate forces and their resource costs to major missions. Systems analysis provided the analytical foundation for making objective decisions among the alternatives in carrying out these missions.

It now remains for the Secretary of Defense to use these tools as he plans and directs the efforts of the military establishment toward defense on

a unified basis. He must ensure that the data coming to him are in every respect relevant, precise, and thorough. The guidance which the Secretary of Defense is capable of furnishing to start this billion dollar chain reaction is only as good as the information which he is provided.

Enabling the Programming Objective

To accomplish the objective of "closing the gap" between the planning and budgeting functions, seven enabling requirements were established. These support the programming system's main objective, which can only be as adequate to its task as they in turn are to theirs:

1. Planning is oriented around major missions. Program planning is on the basis of military missions, which cut across organizational lines instead of being based on single service plans and priorities.

2. There must be an ability to relate resource inputs to military outputs. The resources with their costs must be identifiable when they become components of military forces. Programming is designed to provide both financial and nonfinancial estimates of the resource inputs required.

3. It is necessary to coordinate long-range planning with budgeting. Budget decisions must be compatible with long-range programming decisions. Long-range plans must also be compatible with the forecast or resource availability. To transition from long-range military planning to short-range budgeting, programs and their costs are projected five years ahead and major military forces are projected an additional three years.

4. The continuous appraisal of programs is essential. A mechanism for changing programs whenever a need exists is a requirement.

5. The control of approved programs must be exercised through a system of progress reports. Timely corrective action must be taken as significant deviations from approved plans are made known.

6. The system must provide both custodial and financial information in a form suitable for making cost-utility analysis studies of alternative force structures. Cost must be accurate enough for program comparison but responsive enough to allow frequent studies without greatly increased workloads.

7. A long-range goal is the establishment of an integrated management information system. This will provide information for the programming system as well as for any other needs now being served.¹

Budgeting--The Final Phase

It must be realized that each of these structuring, organizing, planning, and programming activities are valueless without the required funding to carry them out. Before any execution is possible, before any commitment is made, or before any obligation is incurred, there must be an appropriation of funds specifically authorized for defense programs.

The annual budget process represents the final phase in the programming system. The Navy's budget preparation begins some eleven months

¹ The Navy Programming Manual, op. cit., p. 2-2.

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before each fiscal year. At this time the Comptroller of the Navy calls for budget estimates from the various Bureaus and Offices of the Navy Department and a cut-off date is established for programs which will be included in the budget estimate.

All approved programs that are within the "Five Year Force Structure and Financial Plan" as of the established cut-off date are included in a basic budget submission. If some program changes have not received final approval and if approved changes are received subsequent to the cut-off date, it is necessary to include these in an addendum Budget Submission. By use of subsequent amendments, approved program changes are then moved from the addendum to the Basic Budget.¹

This process is necessary because at the same time the budget estimate is being developed, revisions are taking place within the program change system.

After many thousands of man-hours of work, budget estimates are forwarded to the Secretary of the Navy for review, approval, or disapproval. The one firm date in this sequence is October 1, when the service request must be submitted to the Secretary of Defense. Here individual service budgets are reviewed within the overall defense budget objectives. This review is done jointly with Bureau of the Budget analysts.

When tentative budget decisions are reached at OSD level, they are presented to the services by "Subject/Issue Papers." The service Secretaries are then able to appeal any tentative decision with which they may not agree.

¹C. L. Chipley, Jr., SC, Lt., USN, "Budgeting: A Never Ending Job," Monthly Newsletter Magazine of the U. S. Navy Supply Corps, XXVII, No. 7 (July, 1964), 10.

This "reclama" is made through the submission of position papers to the Secretary of Defense. A final decision is then made on each issue and the defense budget is prepared for submission as a part of the President's budget.¹

In January of each year the President submits his budget to the Congress where again analysis is made of the defense appropriation request before the Budget of the United States evolves. Formal budget hearings are held in Congress at which time the service Secretaries and senior military officers testify on the overall department budget. Military representatives are then questioned on details of the programs and the requirements to support these programs in the budget document.² The game does not end here. Many fine works have been prepared on the related budgetary processes of authorization, appropriation, apportionment, and the audit which follows.³ Figure 2 shows the results of the present state of the art in military budgeting as compared with the total federal budget.

Reprogramming Action

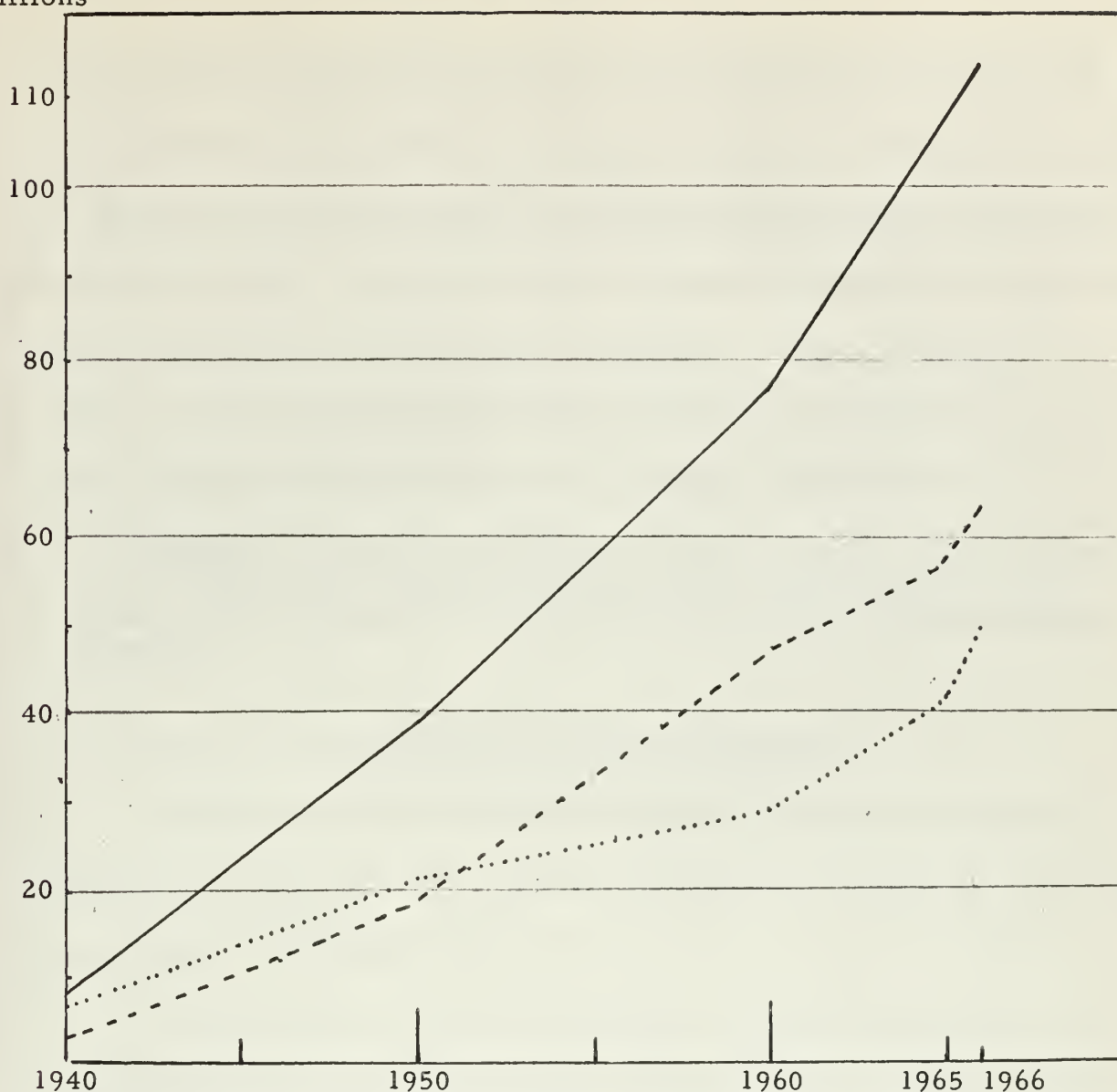
Congress first authorizes the appropriation of funds for defense and then establishes the amount available for apportionment in each of the appropriations. The budget estimates submitted to the Congress are requests for

¹ Navy Programming Manual, op. cit., p. 5-5.

² Ibid., p. 5-6.

³ Refer to Wildavsky, op. cit.; Ott and Ott, op. cit.; Burkhead, op. cit.; or Murray L. Wiedenbaum, Federal Budgeting--The Choice of Government Programs (Washington: American Enterprise Institute, 1964).

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Billions



Source: Arthur D. Little, Inc., "Management Study of the U. S. Congress," NBC News Broadcast, November 24, 1965, p. 37; "Partial Text of Johnson Budget Message," Evening Star (Washington), January 24, 1966, p. A-8.

	1940	1950	1960	1965	1966
— Total Fed. Budget	9.1	39.5	76.5	106.4	112.8*
- - - Defense Budget	1.6	18.4	47.5	56.6	63.3*
..... Federal Budget Less DOD	7.5	21.1	29.0	41.8	49.5*

* - Estimated

Fig. 2. --A comparison of defense spending and the total federal budget

funds based on a projection of the expected requirements for the next fiscal year, a year still some six months away. Should actual defense needs during the year differ from the estimates, a reprogramming action is required to adjust these funds. Within established financial limitations, reprogramming may be authorized by the Secretary of Defense. If these "thresholds" are reached, approval must come from the Congress. In either case, a report of this action must be submitted to the Congress on December 31.¹

Approval of the cognizant Congressional committees also is generally required for changes in major items of ships, aircraft, and missiles or any other program deemed to be of special Congressional interest.²

The Inherent Design Limitations

In a study led by David Novick, head of the RAND Cost Analysis Department, a thorough look is taken at "operational" problems of the Program Budget. These include:

1. Identifying a group of activities as a single program or a program element and then bringing the applicable data together to make a decision.
2. Allocating costs after introducing program budgeting since a completely new cost identification determination will be required.
3. Keeping elements separated even after their identification, since many are interdependent or contain spill-over which must be traced out.

¹U. S. Department of the Navy Budget Digest, op. cit., p. 32.

²Navy Programming Manual, op. cit., p. 5-7.

4. Coordinating two side-by-side budgeting structures develops great amounts of paperwork as well as compounding decisions.

5. Centralizing decision making, resulting in centralization of authority. When thresholds are set too low, nearly all decisions must come from top levels.

6. Withholding of alternatives on cost-utility analysis studies leading to incorrect decisions. Rival agencies through competition help to encourage alternative proposals.

7. Neglecting uncertainties, thus leading to too conservative an approach. With program budgeting there is a tendency to make decisions more rational and less responsive to bargaining.¹

Even Hitch, the author of the Programming System, warns of several inherent weaknesses:

1. Designing tools and data requirements for use by the Secretary of Defense may be precluding the needs of lower level managers.

2. Admitting that procurement policies and procedures cannot be managed in terms of program elements.

3. Programming designed as a continuous process is pulled back onto an annual cycle by budgeting. The ability to implement a change at any time is thus negated by timing requirements.

4. Measuring costs is as yet an imperfect art.²

¹The RAND Corporation, op. cit., pp. 223-232.

²Hitch, Decision Making for Defense, pp. 62-66.

Several overriding reflections prevail from the data presented in this chapter. The first is the number of referrals made to the Office of the Secretary of Defense. Decisions are made at lower levels, surely. But programs cannot be formulated or carried out unless they are directed by a responsible authority. Neither can they be related unless one superior authority has an overall responsibility. Secondly, many of the old information requirements still continue. Programming has added increased requirements without demitting any of the old ones. Thirdly, even with the arrival of greater expertise in project cost categories over longer time frames, costs are calculated on a peacetime, not a wartime, basis. Fourthly, while the FYFS&FP is fundamentally a simple tool, the processes of change, review, and modification have become highly complex and formalized systems. Annual budgeting requirements have forced the FYFS&FP to conform to precisely scheduled procedures.

Yet with all these limitations, risks, and weaknesses, program budgeting will serve the needs of the Defense Department better than any other system. There seems little doubt in the minds at the Pentagon that it is "here to stay."

Chapter III will expand upon the additional problem load placed on the Programming System by the emergence of limited war requirements.

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CHAPTER III

RESPONDING TO EMERGING LIMITED WAR REQUIREMENTS

Facing Economic and Political Realities-- The National Scope

The Federal Government has worked toward the achievement of several national economic goals in the last decade. Following World War II, the impetus was upon monetary policy as a control to achieve economic stability. More recently, our nation's leaders have relied heavily upon fiscal policies. Here the desire has been to stimulate the economy while stabilizing prices and achieving low unemployment levels.

Fiscal Policy

Discretionary fiscal policy requires the maintenance of a pre-established balance between tax and expenditure throughout the year. After estimating the rate of private spending, the government should ideally set its own expenditures at a level which, assuming full employment, achieves the public's desired resource allocation.¹ This done, taxes are set according to the size of the government expenditure, thus allowing for full employment without inflation.² There is seen a very delicate balance in even this simplified model. Introducing all the variables of the economy, this structure

¹ Ott and Ott, op. cit., pp. 81-82.

² Ibid., p. 83.

depends upon intricate interrelationships, forecast estimates, automatic stabilizers, and more than a little luck. Heavy reliance is placed "on the judgment of the Executive and Congress to choose the proper level of tax rates and government spending . . ."¹ The sensitivity of these requirements is magnified by the criticism from minority members of the Congress as well as the continuous pressures for reelection from the majority.

A Budget Ceiling

Without much more discussion it becomes evident that, once the "balance is struck"--once government expenditures have been established by the President and his budget has been sent to the Congress, once the tax level has been set and the President has put in motion the machinery to provide the desired stimulus toward a fully employed, non-inflationary, rising standard of living--a true "ceiling" has, in fact, been applied to government spending.

The FYFS&FP represents your plan for one year, but still you have a balancing operation with White House policy and economic conditions. . . . Basic economic conditions determine the defense budget--if this puts a ceiling on it, it's back to the drawing board to obtain what we can of the force structure that we need.²

Once Congressional appropriation bills are signed into law by the President, it becomes the solemn duty of the Secretary of Defense to uphold the budget with its now more than theoretical ceiling throughout the ensuing fiscal year. Pressures are brought to bear by the Secretary, upon his

¹ Ibid., p. 85.

² O'Connell, op. cit.

departments and agencies. The remainder of this paper is devoted to looking at the results of these pressures and how they have come to affect the FYFS&FP.

McNamara has, more or less conclusively, proven that he can make the FYFS&FP perform successfully under a ceiling limitation during conditions of semipeace. Our present question must be: Is it logical to expect that the FYFS&FP, composed of program elements costed on a peacetime basis, can provide for the continually increasing exigencies of prolonged war and still remain within this spending constraint?

Within the Department of Defense this budget ceiling results in greatly magnified pressures when new unprogrammed requirements arise in periods of crisis. The reaction is to tighten up, to defer, to cancel, to reprogram, to utilize emergency funding, and ultimately to come to depend upon supplemental funding for the expenses which cannot be allowed to be recognized in the annual budget as the price of rapidly expending conflict. These solutions all require an increase in paperwork, undue frustrations, and the loss of vital time.

A fundamentally critical failing during such times is that of forcing the job to be done with less than optimal equipment. Technological advances have resulted in far better weapons than are now in the possession of men actively engaged in fighting our limited war. Improved tactics call for more and better supporting units. Mobility has proven it can win battles as well as save countless lives. But a new weapon system is justified:

. . . "only in terms of its potential contribution to our strategy, considering both its cost and its military effectiveness, as well as the relative cost/effectiveness of other alternatives." This is a succinct explanation of one of McNamara's most controversial policies designed to preclude entering a full systems development without the technology, costs, and schedule fully in hand.¹

These ideas have not just come out of our actions in Vietnam. They were well-founded concepts many years ago which have now been proven. These "deficiencies in our strategic posture can be removed only by substantially increased defense expenditures."² Because we must maintain present forces while producing new forces, military costs by necessity will continue to rise. The heavy burden is cushioned by the growth in the gross national product, but the price of survival is not low.³

Adjusting for New Unprogrammed Requirements -- DOD Procedures

Unless the United States of America were to declare a state of national emergency or to issue a declaration of war, the rapidly changing demands arising from limited war must be funded within the DOD through two basic alternatives. The alternatives are simple; their processes, complex. Either the funds previously authorized and appropriated by the

¹"Can R & D Solve Tactical Warfare Problems?" Armed Forces Management, XI, No. 6 (March, 1965), 54-55.

²Rockefeller Brothers Fund, Prospect for America (Garden City, N.Y.: Doubleday and Co., Inc., 1961), p. 151.

³Ibid., p. 152.

Congress are channeled to new unprogrammed requirements or it becomes necessary to ask for "new money."¹

Additional PCP's for Requirement Changes

New operating requirements put pressures upon the military services to attempt reorientation of presently approved projects. Changes in requirements, as well as the additional operating facility needs, increase the flow of PCP submissions adding to the already overworked paper processing capabilities. PCP's represent the prescribed route to be followed before any budgetary action may be taken. Each new requirement must be submitted for approval as a component part of the FYFS&FP. Only in matters approaching extremism can this approval be obtained through the more expedient memorandum procedure with the PCP following after the fact.

The reaction time . . . imposes an increased requirement. We may meet them in two or three days on a crash basis--taking considerably longer on others as a consequence. In some cases it has been done by memo to the Secretary of Defense, where we explain it is imperative to obtain this. This amounts to a way around--and must be followed up by a formal PCP.²

¹Interview with Captain J. R. Johnson, U.S.N., Head, Budget Analysis Branch, Office of General Planning and Programming, Office of the Chief of Naval Operations, November 12, 1965. The contributions of Captain Johnson to this study were especially valuable because of his strong belief that there was a valuable thesis to be sought. He provided materials beyond my grasp and had the patience to answer many inquiries over a five-month period.

²Remarks of Vice Admiral E. P. Holmes, U.S.N., Director, Navy Program Planning, Office of Chief of Naval Operations, January 5, 1966, at a briefing presented for the Honorable Charles F. Baird, then designate Assistant Secretary of the Navy (Financial Management).

The hours spent in the preparation of intricate proposal details frequently do not provide the desired approval results sought by the services. There is also reason to believe that much of the detail is unjustified.

The present system is burdened with unnecessary detail . . . PCP's must contain sufficient detail to update the FYFS&FP--substantially more detail than is typically needed for decision making . . . nearly 50 percent of the PCP's submitted are rejected or substantially modified, the requirement that PCP's accompany the original proposal results in much wasted work. Another example of unnecessary detail is the excessive reproduction of the same information among the documents comprising the process.¹

The Programming System still remains a useful mechanism for top-level decision making. At the times when individual military services are hardest pressed to fulfill the needs of operating commanders, they must also become enmeshed in the processes of submitting change proposals to support their active requirements. "Program budgeting is not of use, or for use, below the level of the OSD," says one source.² Another authority states: "Programming is a tool for the Secretary of Defense--it is not for the services. It is not easy for the individual services. . . ."³ This is borne

¹ Draft memorandum from McKinsey & Company, Inc., Management Consultants, to the Assistant Secretary of Defense (Comptroller), later forwarded for comment to the Secretaries of the Army, Navy, and Air Force by the ASD(C) memorandum of January 6, 1966, p. 4.

² Dick L. Jackson, Director, Progress Reports and Statistics Division, Office of the Director of Budget; and reports, Office of Navy Comptroller. Presentation for the Navy Graduate Financial Management Program at The George Washington University, December 6, 1965.

³ Captain Richard G. Schutt, U. S. N., Director, Program Change Control Division, Office of General Planning and Programming, Office of the Chief of Naval Operations. Presentation for the Navy Graduate Financial Management Program at The George Washington University, November 10, 1965.

out by the fact that the Programming System provides no direct contribution to day-to-day management at the service level.

While the array of program elements facilitates appraisal of how weapon and support systems are combined to provide a force structure, this aggregation must be translated into other terms to be usable by a functional staff manager or a field commander.¹

The PCP process has a degree of involvement for the individual services which amounts to one of the most time-consuming requirements placed upon them. It is a requirement in the true sense of the word, for, as has been indicated, the service benefits are marginal. The process seems to be one of a true bureaucratic nature where progression occurs in rings of ever-decreasing concentric circles. As urgency increases, the number of PCP's increases. As the numbers increase, so do the workloads at all levels. A criticism made in the interim report submitted by McKinsey & Company, Inc., was that PCP preparation prescribes:

. . . essentially the same approach to documenting, reviewing, and approving both major and minor issues. A review of nearly 500 PCP's . . . indicates no correlation between the size of importance for the decision and the amount of detailed documentation generated. Moreover, the Secretary of Defense must approve every individual program change proposal that breaks current thresholds, without regard to its significance.²

¹Written comments provided by Mr. D. V. Schnurr, Associate Director of Budget, Headquarters, U.S. Air Force, to the Assistant Secretary of Defense (Comptroller) on the DOD Programming System, September 20, 1965, p. 2. This paper by Mr. Schnurr is referenced frequently herein as "Comments by Mr. Schnurr."

²Assistant Secretary of Defense (Comptroller) memorandum for the Secretaries of the Army, Navy, and Air Force, and others, January 6, 1966, p. 3. A memo of September 30, 1965, from the ASD(C) announced a study of the management decision-making process within the DOD to be started October 1, with contractual assistance of McKinsey & Company, Inc.

Additionally, the McKinsey report was highly critical of the fact that the Defense Department relies on individual PCP's as a means for reaching decisions when the Programming System is based on the premise that each decision should cover broadly aggregated issues permitting considerations of alternative and trade-off opportunities.

. . . Individual PCP's do not meet the requirements of integrated decision making because each ordinarily covers only a piece of broader indivisible area. In addition, PCP's often do not identify all the alternatives to be considered or present adequate analysis of those identified.¹

Use of Existing Assets

The first option to be thoroughly exploited, at the direction of the Secretary of Defense, is that of utilizing funds which are presently available. Until the possibility of diverting these funds to new programs is fully exhausted, the Secretary cannot justifiably ask for new money through supplemental appropriations. To do so would be to perform the duties of his office with less than complete compliance. The brunt of the burden is thereby placed directly on each of the military services. This is evidenced by a memorandum from McNamara during one of the periods of most rapid escalation of the Vietnam conflict.

. . . until such time as we can predict with reasonable accuracy the amount of financial supplement required to accomplish this objective, we will utilize emergency funds, transfer authority and reprogramming actions to the maximum possible extent . . .²

¹Ibid., p. 7.

²Memorandum from the Secretary of Defense to the Secretaries of the Army, Navy, and Air Force, dated June 24, 1965.

Deferrals or Cancellation

One of the aspects which cause the efforts of the Programming System to seem most futile is a realization that even after a program change proposal is approved as a part of the FYFS&FP, a program decision is not a budget decision. Program approval does not automatically constitute the authority to commit or obligate funds.¹

The program budget was to do away with the priority basis of budgeting by looking at the aggregated requirements of the defense establishment as a whole.² Yet, as the FYFS&FP for the current year is adjusted for economic conditions, prior to being sent to the President as the Annual Defense Budget, or after the requests in the President's budget are reduced by the Congress, priorities once again come to play their roles.

Allegedly, this is now done by highly scientific methods and not purely by value judgments as in the past. While the final budget formulation is still in the hands of the Secretary of Defense (during the OSD-Bureau of the Budget Mark-Up), these decisions come down in the form of Subject/Issues. They are "reclamaed" within five working days by the services through position papers, but in the end some priority decision at the OSD level is made which defers the project to the following year.

To obtain funds to start immediately on a rush project, it is sometimes decided to defer a program previously approved. This occurs when it

¹Department of Defense Directive 7045.1, op. cit., p. 11.

²Hitch, Decision Making for Defense, pp. 23-27.

would not be feasible to wait for appropriations in the following fiscal year. Or, instead of a deferral, there may well be complete cancellation of a program as a means of releasing funds for other uses. In either deferral or cancellation, reprogramming action must be taken to move funds from previously approved projects to the newly approved ones.¹

There are other cases where items strictly controlled by the Congressional subcommittees cannot be reprogrammed. Items in Military Construction are the most common example. Press statements may often lead to confusion in this regard.

Secretary of Defense Robert S. McNamara's slash of nearly half this year's military construction program foreshadows a new defense budget shorn of anything which cannot be justified by military necessity and the Viet Nam war. McNamara signaled this . . . in saying that indefinite postponement of \$620 million in construction of homes for service families, barracks, and other like facilities is "symptomatic" of his approach to the new defense budget now being put together . . . McNamara said that his department is eliminating or deferring everything that can possibly be sidetracked . . .²

Actually the Military Construction funds involved in the \$620 million deferral will not be reprogrammed for uses other than those originally specified. In this case, \$620 million of projects will be deferred, thus reducing near-term military expenditures; the funds, however, remain available. In this manner

¹ Interview with Mr. D. V. Schnurr, Associate Director of Budget, Headquarters, U. S. Air Force, January 31, 1966. Mr. Schnurr has contributed many sound ideas in addition to his expert assistance in technical areas of this paper.

² "Cut in Projects Indicates Defense Budget Pinch," Evening Star (Washington), December 21, 1965, p. 1.

it is possible for the Secretary of Defense to manipulate defense spending so that the total expenditures do not appear to be so great.

Reprogramming Actions

The Fiscal 1966 defense budget was prepared at a time when it was not possible to forecast the current degree of involvement in Vietnam. Some action is therefore necessary to assure that the Fiscal 1966 financial plan will continue to support U. S. forces in this war.

Shortly after funds are made available by the Congress, a DD Form 1414 must be submitted to the Congress providing them with an estimated baseline of how money is to be spent in terms of quantities to be procured and the associated dollar amounts involved. Should existing funds be subsequently made available within the Department of Defense, either by deferral or cancellation of previously authorized projects, a formal change to the original baseline must be made. This is accomplished by the submission of a DD Form 1415 requesting reprogramming action. This request for reprogramming action must follow whenever a change in quantity or in dollar amount is made to the original estimate (above the established thresholds). The Form 1415 shows the original Congressional approval, the amount of change requested, and the proposed total as revised (both quantities and dollars).¹

¹ Department of Defense Directive 7250.5, "Reprogramming of Appropriated Funds," March 4, 1963, pp. 1 ff.

In most reprogramming actions the Secretary of Defense can notify the Congress after the fact by way of the Form 1415. In other categories (where there is a specific interest on the part of the Congress) prior approval of concerned committees must be obtained. This is infrequently given in the case of Military Construction.

A DD Form 1416 is submitted at the end of each six-month period. This is a status report listing all line items of programs, including reprogramming actions as of the end of the period.¹

Two other methods of financing are also available. These occur on a routine basis each year:

The use of free assets--items bought and paid for by a service from a prior year program which are no longer required and do not need to be replaced. These may be sold for reimbursement to a foreign country and the funds used for additional expenditures.

The use of recoupments--when initial estimates of funding are made, should an error exist on the high side; or if costs of production decrease, the overfunded balance is brought forward.²

Emergency Funds

Of the three actions which can be conducted through the emergency fund, two are available from existing asset sources previously appropriated by the Congress. The first allows the Secretary of Defense, with the approval

¹Schnurr, op. cit.

²Ibid.

of the Bureau of the Budget, to transfer \$125 million from the emergency fund to any other Defense appropriation.¹ This would be done specifically when a major research, development, test, and evaluation breakthrough was deemed to exist. Secondly, the Secretary of Defense is authorized to transfer up to an additional \$150 million from any appropriation account through the emergency fund to another appropriation.² This may be done should the Secretary determine that funds can be "wisely, profitably, and practically used in the interest of national defense; provided, that any such transfer shall not exceed 7 percent of the appropriation from which transferred."³ Both of these emergency fund actions would be utilized to permit more rapid progress in research and development projects. They would permit accelerated development should a scientific breakthrough come earlier than expected.

The third emergency fund transfer is authorized by the Congress, but no funds are appropriated for its purpose. It would most logically be considered in the category of new monies. "Transfers of up to \$200 million under the terms of the Emergency Fund are authorized if such is vital to the security of the United States."⁴ Here the Secretary of Defense is authorized to again transfer from any appropriation account through the emergency fund to any other account but, in addition, he must promptly report such transfers to the Appropriations Committees of the Congress. This form of transfer

¹ U. S. Department of the Navy, Budget Digest, Fiscal Year 1966, op. cit., p. 36.

² Ibid.

³ Ibid.

⁴ Ibid.

functions primarily as a readiness requirement backstop. Even more flexibility may be provided should the need for increased readiness become imperative. Section 512 of the Department of Defense Appropriations Act permits the President to authorize deficiency spending. If the President were to make such a determination in the interest of national defense, he may except appropriations, funds, or contract authorizations for military functions under the Department of Defense from the apportionment process required by the Anti-Deficiency Act.¹

New Money Through Supplemental Appropriations

When operational requirements so far exceed appropriations that existing assets cannot possibly meet the need, a supplemental appropriation request becomes mandatory. Without it programs must face cancellation and support to front lines cannot exist.

Such a requirement initiated the first supplemental appropriation for the war in Vietnam. The amount of \$700 million for the fiscal year 1965 was requested by the President in a special message to the Congress on May 4, 1965.² As House-Joint Resolution 447 of May 5, 1965, became Public Law 89-18, these funds were appropriated for the Department of Defense

¹U. S. Congress, Department of Defense Appropriations Act, Public Law 88-446, Section 512, p. 6.

²U. S. , Congress, House, 89th Cong. , 1st Sess. , H. R. 286, May 5, 1965.

Emergency Fund, Southeast Asia. Transfer authority was given to the Secretary of Defense after a determination of necessity was issued by the President. The Secretary could then transfer funds as needed from this emergency fund account to the Operation and Maintenance, Procurement, or Military Construction accounts, provided the Armed Services and Appropriations Committees were notified immediately under the reporting provisions established by reprogramming procedures.¹

The Fiscal 1966 budget did not make any additional provisions for increased expenditures in Vietnam. It became necessary to appropriate \$1.7 billion to the "Emergency Fund, Southeast Asia" (under Public Law 89-213) for transfer to the other appropriations of the Department of Defense as determined necessary by the Defense Secretary.²

In the third quarter of Fiscal Year 1966, the drain of operating requirements caused some overprogramming in anticipation of additional appropriations. Another supplemental appropriation had been determined to be necessary. Internal struggle in budgeting areas reached feverish levels as financial managers tried to "borrow" from approved programs, yet keep from cancelling other essential ones. Many interim solutions were required. The Chief of Naval Operations created an ad hoc committee to document

¹U.S., Congress, Senate, 89th Cong., 1st Sess., Report 176, May 5, 1965.

²The \$1.7 billion appropriation had all the characteristics of a "supplemental," thus allowing transfer at the discretion of the Secretary of Defense. However, since the Budget of the United States was not readied until September 1965, this appropriation was added to the President's Budget as an amendment.

unfunded requirements that became known as the "Mother Hubbard Group" (designed to fill bare cupboards).¹ This group compiled a collection of known requirements established on the premise that funding must be forthcoming if our military forces were to continue fighting a war. It also established a justification for a Navy share in any supplemental appropriation, and aligned priorities. First were the projects where needs were immediate and where there could be no delay in obtaining funding. Next came the projects which needed funds within the fiscal year in order to continue. Finally, there were the projects that required funds in order to implement contingency plans or that were required for buildups.²

On January 19, 1966, the third supplemental appropriation for Vietnam in the amount of \$12.7 billion was requested.³ This would be, theoretically, sufficient to cover the remainder of Fiscal 1966 and to provide long lead items to support operations in Vietnam in 1967.

Once again is shown the Administration's intent of excluding the costs of this war from the regular budget. As a consequence, the inflexibility of the FYFS&FP is once again emphasized. The complicated processes of PCP submission, the involved reprogramming actions, and the holding back of funds which reduce programs to a minimal level in the attempt to conserve, all add their own special complications.

¹ Johnson, op. cit.

² Ibid.

³ U. S., Congress, House, House Document No. 362, January 19, 1966.

If the true meaning of the situation were known, perhaps it might be seen that the Executive was attempting to keep the expenses of the war hidden from the public and to delay its cost in time as much as possible for political reasons.

Vietnam expenses coming from three supplemental appropriations are carefully isolated in an unusual breakout which runs through the budget; yet this conceals how much of the remainder of defense spending is being diverted to Vietnam . . . ¹

Even so, it is still possible for loyal servants to disclaim this logical supposition and rationally refer our problems to the democratic processes of the budgetary system itself by saying that:

. . . ours is a crisis basis of operation. We have to build up usage rates and estimates for future budgets; therefore, immediate needs must come by supplementals . . . ²

Such a smoke screen is recognizable. It does not seem consistent with the language used in the House of Representatives Report of the first supplemental appropriation for military functions, which states: " . . . the Committee believes a position of plenty--militarily--is to be desired in the light of world conditions. " ³

¹"A Budget That's Bound To Bend," Business Week, January 29, 1966, p. 29.

²Rear Admiral E. E. Grimm, U.S.N., Director of Budgeting and Reports, Office of the Navy Comptroller. Presentation for the Navy Graduate Financial Management Program at The George Washington University, December 13, 1965.

³U.S., Congress, House, H.R. 286, op. cit., p. 2.

The Departmental Dilemma

Five years' experience with the DOD Programming System has made the potential areas of strength clear to its users. More evident are the weaknesses, shortcomings, and associated problem areas. Representative examples have been selected from these problem areas as a means of providing insight in this paper into the perplexing inconsistencies which still exist for the military departments. This is done rather than to attempt to exhaust the entire range of problems.

General Design Problems

The conceptual basis of the Programming System depends upon centralized decision making by proper authority. The continuing trend toward this centralization has been accelerated by nearly every solution designed to relieve the rapidly arising problems of war in Vietnam. "What has evolved is a structure where there are too many people who can say No, but not enough who can say Yes."¹ Even the smallest technical decisions have been raised to the level of the OSD staff, creating far greater service workloads.

We do not challenge the process of functional review. . . . We do challenge the amount of detail. This needs to be examined and brought under control to avoid breaking the backs of the military department staffs. The furnishers of data in the service staffs are the same people contributing to the PCP and budget systems, although the OSD users are different.²

¹ O'Connell, op. cit.

² Comments by Mr. Schnurr, p. 8.

Centralization has also caused the OSD to direct changes in procedures prior to consulting the services, or before requested comments have been reviewed and discussed with them. "Sometimes a more complete understanding of the service view might be helpful. A more workable product should result if the military services could participate in the development and staffing of procedure changes."¹

Another area of weakness is in the control of costing. The detailed preciseness insisted upon has resulted in a completely inflexible device. Hitch originally intended that cost estimates should be approximations.

Since preparing and digesting numerous cost estimates is itself rather costly, however, it is uneconomic to insist on precise estimates . . . the costs of programs and program increments would be rough approximations.²

In reality, the detailed control over the five-year span has required an impossible degree of accuracy in cost figures, even in the remote years.³

. . . the procedures for keeping the plan current have so much built-in rigidity that it is difficult to make even factual changes which do not involve true questions of program level. For example, under current procedures, changes in cost factors cannot normally be made more often than annually, except through the medium of the program change proposal. . . . The tendency is now to ignore all except the most necessary changes, and to change dollar amounts only when inaccuracies have become large enough and obvious enough to warrant incurring the substantial workload involved in the change process.⁴

¹Ibid., p. 11.

²Hitch and McKean, op. cit., p. 57.

³Comments by Mr. Schnurr, p. 4.

⁴Ibid., pp. 4-5.

Still other weaknesses lie in the fact that the timeliness of decisions has not been aided. Even though PCP's must be submitted with massive amounts of supporting data, lengthy reviews are required by OSD staff personnel with decisions often delayed weeks or months.¹ The piecemeal operation of the PCP process makes it impossible for service managers to support budgets as the optimum mix of programs.

Implementation or Adjustment Problems

Perhaps the greatest weakness in the Programming System is that budgeting is not yet in line with programming; there is no single "language" linking the two together.² Those working in budgeting functions still have not completed the transition from appropriation accounts to program terms. This is brought about by the fact that the terms most used are those most useful to the functional manager or operational commander. This lack of a common link is well confirmed by the following comment:

We are still doing business on our President's Budget and then translating from these categories into program terms to talk to McNamara.³

This problem can compound itself when operating requirements require an increase in some program element now being funded in part from the Southeast Asia supplementals. Should a need be determined for fifty additional

¹Ibid., p. 5.

²Admiral Grimm, op. cit.

³O'Connell, op. cit.

F-105 aircraft, this requirement must be translated from appropriation account data to program terms in an attempt to obtain approval. Once authorized, program terms are then returned to the format of the appropriation structure. In most cases of urgent need, this is neither practicable nor feasible.

The FYFS&FP is used as an after-the-fact document. By nature it does not lend itself to the short reaction times found in contingency operations. The FYFS&FP was developed on a model basis in a theoretical environment. When opened to the real world, the controls it requires become too burdensome.¹

Historically, the FYFS&FP has never been used as a means of funding during a period of extended military operations. The McKinsey corporation is now under contract to the Department of Defense to conduct a management study because:

The Five-Year Force Structure and Financial Program has become so cumbersome it is unwieldy. Financed year by year it results in an orderly process-but when we get into a war it will fall apart. As a fact, the September [1965] update of the Five-Year Force Structure has had to be omitted and scheduled for some later date. There arises the question of how can we make this system work?²

Because major efforts are now being conducted with the specific intent of determining solutions to these weaknesses of rapid reaction and workability, further discussion in this problem area will be omitted. The McKinsey study is expressly concerned with the mechanism by which changes are made in the

¹ Interview with Captain P. L. Sullivan, U. S. N., Associate Director (Plans-Programming), Office of the Director of Budget and Reports, Office of the Navy Comptroller, January 5, 1966.

² Admiral Holmes, op. cit.

It is noted that the Commission has not yet received any information regarding the progress of the investigation.

The Commission is aware of the fact that the investigation is being conducted by the relevant authorities.

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FYFS&FP. Anthony, as well, is directing a study on the management control system. Many major changes will have been introduced in the Programming System even before this paper is completed.

Other Problems

Many other problems have found their way into the arena of the program budget as it relates to limited war. Whether transient or permanent, they all leave some mark on the Programming System as they complicate and confound the services. The inroads of interim solutions have seriously undermined both group and individual confidences in the system. As yet another method of going "around" the problem is conceived, program budgeting loses more of its strength to do the task it was intended to do. There is always the tendency to take the safest approach; and this has often been found to be the tried and proven one. As financial managers pare their programs, they often wonder if the intended objective may still be obtained. After reprogramming, only so much remains--when the least desirable have been taken out--further reductions induce suffering in all other programs.

The individual soon loses his pride of effort and any sense of accomplishment diminishes when he can no longer compete with the system that is robbing him of his program objective. Assets continue to be used up at a rate faster than that at which they have been programmed. As an example, the many hours of high-speed steaming during launch and recovery of continuous air strikes in the South China Sea makes each and every operational aircraft carrier old before its time; and replacement construction is not seen

in the future. This feeling of a quickening of pace predominates. The entire climate of operation encourages the optimization of short-run gains in fund usage, to the detriment of long-run results. The pressures exerted for more output from fewer funds over short periods may have unfavorable repercussions in the long run.¹ Conscientious managers frequently wonder if they are not stinting on repairs, upkeep, or modernization. Have they crossed the fine line that separates the extremity of excess and crossed over into a vital requirement? Or, if this does occur, have they still the authority to make even that fact known?

The basic fact today remains just as it was ten years ago. Managers have come to the conclusion that "militarily we must allow some over-production and excess in money, because we never know what the requirements of war will be."² Remarks such as this again sound the cry of alarm that was issued by the Rockefeller panel reports:

Achievement of the objectives of our national security programs in the years ahead hinges on the availability of financial resources and the manner in which they are applied. There is grave reason for concern with respect to the inadequacy of recent levels of military appropriations, as well as with respect to the workings of the budgetary process.³

Regardless of the year, the major shortcomings seem to remain the same. Military expenditures are kept low for political reasons. Budget

¹ Horngren, op. cit., p. 294.

² Sullivan, op. cit.

³ Rockefeller Brothers Fund, Prospect for America, p. 149.

ceilings result in a serious imbalance in overall military preparedness. The programs of greatest importance to the security of the United States suffer from insufficient funds. And the budget squeeze ultimately affects both our short-term force level build-up and the rate at which our long-term research and development effort can progress.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Questions Restated

In the course of this paper an attempt has been made to present the Five-Year Force Structure and Financial Program for inspection. Through an understanding of daily operating procedures and the effects which these have upon the many components of the FYFS&FP, it is possible to gradually narrow the focus of attention to the items of greatest criticality. Utilizing this method we would hope to see whether the Five-Year Force Structure and Financial Program conceptually contains both adequate resources and sufficient flexibility to deal with rapid changes in military force requirements. To accomplish this task it is necessary that we be able to ascertain whether the FYFS&FP can also be readily modified to accommodate the requirements of a limited war. This provides a better understanding of the degree of flexibility and the amount of resiliency inherent in the FYFS&FP. Should less than the desired flexibility be discovered, our mission remains unaccomplished unless a determination can be made whether the limit of flexibility is a structural limit, or whether it is induced by the control processes.

Summary

Our national resources are limited and exceedingly difficult to apply effectively. Many alternative applications are to be found. Those resources allocated to defense purposes must be applied to the optimum alternatives. Consequently, the impetus in defense decision making is toward the scientific approaches to management of the resources made available to the public sector.

With today's requirements for a diversified military establishment, it becomes economically infeasible to provide funding for the force structure and weapon systems necessary to maintain a totally adequate defense posture. The tendency is to rely on our strategic forces as a means of waging limited war. This action reduces the effectiveness of our overall retaliatory capability. In addition to maintaining a force in being, we must also possess a resolution to use our force whenever required and, finally, we must ensure the existence of necessary funding and a flexible budgetary system to carry out our resolution. The Department of Defense Programming System establishes the mechanisms by which budgetary decisions are made regarding the alternatives in national defense. The Five-Year Force Structure and Financial Program provides the continuing base for the Defense Department's annual budget submission.

Essentially the present Programming System is good in comparison to the methods of the 1950's. Through mergers, consolidations, and centralization a significant increase in authority has evolved to the Secretary of

Defense. Much of this increase in power has been wrested from the military services in the interest of responsible, top-level decision making. Today, Defense-wide programs are brought together to portray overall military needs and readiness. It is now possible to analyze the total force structure for all military services in terms of national objectives as well as financial requirements over an extended period of years.

Secretary of Defense Robert S. McNamara has proven that he can make the Five-Year Force Structure and Financial Program serve its purpose under a dollar ceiling limitation in conditions of semipeace. But when this same ceiling is imposed during a situation of prolonged war with continually increasing exigencies, internal pressures develop which finally vent themselves at the points of greatest strain--in the military departments. The services are forced to tighten up, to defer, to cancel, to reprogram, to utilize emergency funding. It has become more and more evident that the approval of a program does not automatically constitute the authority to commit or obligate funds. Our current involvement in Vietnam has required countless changes to previously approved programs for Fiscal 1966 alone. This is the arena in which our real problems become evident. This, then, is where we must look for the answers to the previously stated questions.

Answers to the Research Questions

The Five-Year Force Structure and Financial Program contains the entire assets of the defense establishment. The resources made available

are, by and large, adequate. Indications are that proper use has not been made of many of the forces which constitute the FYFS&FP and this has impaired effectiveness. For example, Program V--Reserve and Guard Forces-- is not being used to cope with the problems of limited war. Political and economic pressures have rendered this portion of the FYFS&FP "unusable" or "untouchable." As a result, there is a drain on the deterrent capability of our strike forces. Any combat attrition of this force limits the power of our retaliatory sanction. Through our own unwillingness or inability to utilize the full force structure of the FYFS&FP in the conceived manner, the enemy has accomplished his purpose just as though he himself had imposed the critical constraint.

An additional weakness is seen in the lack of a more flexible reprogramming authorization from the Congress during periods of increased military action. Funds appropriated for a peacetime mission no longer suffice. Battle requirements have suddenly changed the entire scope and range of military construction and weapon systems needed by our fighting men. Reprogramming presently is an ineffective procedure to rearrange funding to meet unforeseen yet exigent necessities of combat operation.

The Five-Year Force Structure and Financial Program concept and procedures can be modified if political pressures will allow. If they will not, or if the powers exerting these political pressures refuse to recognize increased military action as a signal for a contingency method of operation, this manner of planning and structuring force requirements becomes as

ineffective as any other.

The controls which are built into the Programming System have caused the Five-Year Force Structure and Financial Program to become too inflexible to be useful in dealing with significant unforeseen contingencies. The Five-Year Force Structure and Financial Program was designed to permit peacetime planning efficiency and budgetary economy. Yet its overall flexibility is deterred by the paperwork and coordination requirements necessary to enable decisions which at present emanate principally from the top levels. Much of this problem could be alleviated by setting thresholds at lower levels. The thresholds now remain stationary regardless of rising prices, inflated dollars, and infinitely sophisticated equipments with their ballooning costs.

Timely military decisions cannot be made within existing limits, and yet these decisions are called for at all levels in times of war. The average processing time of the PCP's is too lengthy as has been borne out by more and more memorandum agreements. Memorandum agreements do not bring formal changes to the Five-Year Force Structure and Financial Program. Formal changes occur only at some later date when the procedural intricacies of the PCP System allows. What these actions really attest to is the fact that the detailed preparation now required for any PCP submittal is unnecessary. The FYFS&FP is being choked by a proliferation of controls, when what is most needed is a wholesale procedural streamlining.

These conclusions have been proven not once, but three times. On each of these occasions a defense supplemental appropriation has been

authorized to cover cost increases which could be met by no other means. Many of these cost increases caused a drain on operating funds, resulting in overprogramming in anticipation of additional appropriations. With each supplemental appropriation the total costs of the FYFS&FP are pushed further under an obscuring cover of secrecy, while the mechanisms of the Programming System strain to overcome the restrictions forced ever more frequently upon it.

The Five-Year Force Structure and Financial Program can become an effective tool only if permitted to do so. In the last five years the myriad of problems which were previously labeled "insurmountable" has gradually reduced. Much work has been done to improve costing and estimating, the last major stumbling block within the FYFS&FP. However, this work cannot continue when political maneuvering forces these costs to be hidden or disguised. Unless there is a recognition by all levels of our government that the Vietnam conflict has emerged as a rapidly expanding limited war, and its demands come to be laid out openly and aboveboard, the Five-Year Force Structure and Financial Program will never become totally effective. Only when the full impact of every financial transaction can be analyzed in its proper place will the operators of the Programming System be able to recommend and implement the changes necessary to fulfill contingency requirements.

Conclusions

The previously stated areas of weakness can be summarized into two major failures of the Five-Year Force Structure and Financial Program.

The total funding of the Five-Year Force Structure and Financial Program is essentially at peacetime costs. Element costs are originally entered as such precise values (even for remote periods in time) that any cost variations which occur result in serious inflexibility. Thresholds are set for extremely close tolerances. The processes of program change have become too lengthy and too difficult. In fact, the problems of initiating a change have reached such complexity that PCP's are avoided until inaccuracies become too great to live with, or the error in dollar amounts is obvious enough to warrant the work involved. Once a program is entered it is impossible to alter the sum composition of the FYFS&FP unless an exactly offsetting change may also be made. It is easy to observe why a war--even a limited war as is currently being waged in Vietnam--exaggerates funding requirements. The defense budget originally established for Fiscal 1966 was \$56.6 billion. Including the increases concealed in this year's supplemental appropriations (\$1.7 and \$12.8 billion), the total Fiscal Year 1966 defense budget stands at \$71.0 billion. These figures show the marked variance arising in just one year from the programs originally held within the FYFS&FP as rigidly controlled, precisely costed dollar amounts.

The Five-Year Force Structure and Financial Program serves no useful managerial purpose at the level of the individual military services. It

Conclusion

The present study aimed to investigate the effects of the proposed intervention on the health and well-being of the participants. The results of the study are presented in the following sections. The first section presents the results of the pre-test and post-test surveys. The second section presents the results of the focus group discussions. The third section presents the results of the qualitative analysis. The fourth section presents the results of the quantitative analysis. The fifth section presents the results of the statistical analysis. The sixth section presents the results of the conclusions. The seventh section presents the results of the recommendations. The eighth section presents the results of the limitations. The ninth section presents the results of the future research. The tenth section presents the results of the acknowledgments. The eleventh section presents the results of the references. The twelfth section presents the results of the appendices. The thirteenth section presents the results of the glossary. The fourteenth section presents the results of the index. The fifteenth section presents the results of the table of contents. The sixteenth section presents the results of the list of figures. The seventeenth section presents the results of the list of tables. The eighteenth section presents the results of the list of abbreviations. The nineteenth section presents the results of the list of symbols. The twentieth section presents the results of the list of units. The twenty-first section presents the results of the list of formulas. The twenty-second section presents the results of the list of equations. The twenty-third section presents the results of the list of diagrams. The twenty-fourth section presents the results of the list of flowcharts. The twenty-fifth section presents the results of the list of maps. The twenty-sixth section presents the results of the list of photographs. 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does not enable decision making or provide any direction for their economic management of funds. It exists solely as a tool for higher authority. This condition, however, need not exist. The controls of the FYFS&FP could be reoriented to enable service utilization. The final and undeniable fact appears to remain that the Secretary of Defense does not wish to relinquish any of his control to the services. The Programming System, of which the FYFS&FP is the "heart," was designed as a tool of decision making specifically for the use of the Secretary of Defense. Even at the expense of Departmental efficiency, here is where the decision-making authority apparently is to remain.

Other Remarks

It is not within the limited ability of the writer to offer specific recommendations for the solution of these failings of the Five-Year Force Structure and Financial Program. These are matters which must be resolved at extremely high levels as national policy issues. As long as the FYFS&FP serves the needs of the Secretary of Defense, its continuation on the present basis seems justified. Should inefficiencies at the Departmental level impair the ability of the Secretary to manage the defense establishment, these issues would then become vital to national defense. As such, they would call for resolution at the Presidential level, perhaps as an overt act by the National Security Council, or covertly through suasion from the Bureau of the Budget.

The scope of this paper has been somewhat broader in nature than is customary for a thesis. This was done with intent on the part of the writer in the desire to accomplish two purposes. Initially, this paper provided the

vehicle to conduct a study of the entire Department of Defense Programming System. To this end the required research has been a tool for self-instruction. Further, it is hoped that this study may serve as a platform from which may rise further studies in this field. In this regard, any of the specific areas of discussion in Chapter III would provide a timely and probing thesis topic. Among these should be:

- A study of the methods of securing force structure changes
- A study of the effects of a budgetary ceiling
- A study of reprogramming actions
- A study of the deferral and cancellation of military projects
- A study of the utilization of emergency funds
- A study of the military supplemental appropriation processes.

An exceptionally timely study could be initiated regarding the impacts of the McKinsey and Company, Inc., study of the management planning process.

APPENDIX

GLOSSARY OF TERMS

<u>Terms</u>	<u>General meaning in this paper</u>
Planning	The selection of potential courses of action through a systematic consideration of alternatives. This tells us what we have to do.
Programming	The specific determination of manpower, materiel, and facilities necessary to accomplish a program of national defense. Tells us what we have to do to implement plans.
Budgeting	The process of translating manpower and materiel resource requirements into financial resources of a specified time period. Then getting the money.
Program element	A combination of men, equipment, and installations effectiveness is related to our national security objectives. Elements exist within service boundaries.
Program	Related groups of program elements considered together for decision purposes because they support one another or are close substitutes. A program crosses Service lines.
The Five-Year Force Structure and Financial Program (FYFS&FP)	The summary of all approved programs of the Department of Defense. Its purpose is to arrive at the needed posture based on strategic requirements in the future.
Total Obligational Authority (TOA)	1. The amount required to finance a program element in a given year, regardless of when Congress appropriated the funds. 2. A method of measuring costs--the total financial requirements for the FYFS&FP, or any component part.
Program Cost	The estimate of TOA required.

Program Change Proposal	An adjustment in the approved FYFS&FP submitted whenever variances (increases or decreases) exceed specified thresholds.
The Programming System	The methods and procedures to establish, maintain, and revise the FYFS&FP.
Reprogramming	A transfer of funds within appropriation categories without asking for a change in amount. A shift.
Thresholds	1. For PCP's: A set of criteria which require a program change to be submitted for approval by the Secretary of Defense when they are reached. 2. For Reprogramming: A set of criteria below which the Secretary of each military department can reprogram in his own authority, but above which a reprogramming request form (DD 1415) must be forwarded to the Secretary of Defense for action and transmittal to the Congress.
Approved Programs	Components of the FYFS&FP approved by the Secretary of Defense, modified by the approved PCP's, reprogramming action, Subject/Issues, or below threshold changes approved by the head of a DOD component.

BIBLIOGRAPHY

Public Documents

- U. S. Bureau of the Budget. Planning-Programming-Budgeting. Bulletin No. 66-3, October 12, 1965.
- _____. The Budget in Brief, Fiscal Year 1966.
- U. S. Congress. Department of Defense Appropriations Act, 1965. Public Law 446, 88th Cong., 2d Sess., August 19, 1964.
- _____. House of Representatives, Committee on Appropriations. Supplemental Appropriations for Military Functions of the Department of Defense. Report No. 286, 88th Cong., 1st Sess., May 5, 1965.
- _____. House of Representatives, Committee on Appropriations. Supplemental Appropriations for Military Functions of the Department of Defense. Report No. 362, 89th Cong., 2d Sess., January 19, 1965.
- _____. House of Representatives, Committee on Government Operations. Extent of the Control of the Executive by the Congress of the United States, 87th Cong., 2d Sess., prepared by Charles J. Zinn, Committee print No. 87070, August 1962.
- _____. House of Representatives, Subcommittee of Department of Defense Appropriations, Committee on Appropriations. Hearings, Department of Defense Appropriations for 1963. Report No. 1607, 87th Cong., 2d Sess., April 13, 1962.
- _____. Senate, Committee on Appropriations. Supplemental Appropriations for the Department of Defense, 1965. Report No. 176, 89th Cong., 1st Sess., May 5, 1965.
- U. S. Department of Defense. Cost and Economic Information System. Directive No. 7041.1, July 7, 1964.
- _____. DOD Programming System. Directive No. 7045.1, October 30, 1964.
- _____. Reprogramming of Appropriated Funds. Directive No. 7250.5, March 4, 1963.

U. S. Department of the Navy, Office of the Chief of Naval Operations. The Navy Programming Manual; Part I, Programming Overview, OPNAV 90 P-1, September, 1964.

_____. Office of the Comptroller. Budget Digest, Fiscal Year 1966, NAVSO, P-1355, November 30, 1965.

_____. Office of the Comptroller. Detailed Guidance for the Preparation and Submission of FY 1967 Department of the Navy Budget Estimates to OSD/BOB, NAVCOMPT Notice 7111, September 16, 1965.

_____. Office of the Comptroller. Duties of Director of Budget and Reports, September 1965.

_____. Office of the Comptroller. Program Change Control System in the Department of the Navy, NAVEXOS, P-2416, August, 1962.

_____. Office of the Director, Navy Program Information Center. DOD Programming System in the Department of the Navy, October 29, 1965.

U. S. President. Lyndon B. Johnson, 'Special Message on the Defense Budget,' State of Our Defense Message to the 89th Congress, January 18, 1965, 89th Cong., 1st Sess., Congressional House Document No. 54.

Reports

Bell, Chauncey F. Cost-Effectiveness Analysis as a Management Tool, Paper P-2988. A Report reproduced for the author by the RAND Corporation, Santa Monica, 1964.

Department of Defense. Study Report: Programming System for the Office of the Secretary of Defense. Prepared by the Office of the Assistant Secretary of Defense (Comptroller), Washington, May 31, 1962.

Fisher, G. H. Analytical Support for Defense Planning, Paper P-2650. A Report reproduced for the author by the RAND Corporation, Santa Monica, 1962.

_____. The New OASD (Comptroller) Programming/Budgeting Process, Research Memorandum, RM-3048-PR. A report reproduced for the author by the RAND Corporation, Santa Monica, 1962.

- Hitch, Charles J. On the Choice of Objectives in Systems Studies, Paper P-1955. A report reproduced for the author by the RAND Corporation, Santa Monica, 1960.
- Little, Arthur D., Inc. Management Study of the U. S. Congress. A report to NBC News. Reprinted edition of the special report "Congress Needs Help," broadcast on the NBC Television Network 10:00 to 11:00 p.m. EST, Wednesday, November 24, 1965.
- McKean, Roland N., and Anshen, Melvin. Problems, Limitations, and Risks of the Program Budget. Research Memorandum RM 4377-RC. A report reproduced for the authors by the RAND Corporation, Santa Monica, 1965.
- Novick, David. Program Budgeting in the Department of Defense. Research Memorandum RM-9210-RC. A report reproduced for the author by the RAND Corporation, Santa Monica, 1960.
- Rockefeller Brothers Fund, Inc. International Security--The Military Aspect, Report No. II in a series of six special project studies directed toward thoughtful citizens of the United States. New York, 1958.
- Smithies, A. Government Decision Making and the Theory of Choice, Paper P-2960. A report reproduced for the author by the RAND Corporation, Santa Monica, 1964.
- Weiner, M. G. The Role of Operations Research in Planning for Limited War, Paper, P-2654. A report reproduced for the author by the RAND Corporation, Santa Monica, 1962.

Books

- Baumol, William J. Economic Theory and Operations Analysis. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965.
- Burkhead, Jesse. Government Budgeting. New York: John Wiley & Sons, Inc., 1959.
- Duscha, Julius. Arms, Money, and Politics. New York: Ives Washburn, Inc., 1965.
- Hitch, Charles J. Decision Making for Defense. Berkeley and Los Angeles: University of California Press, 1965.

Hitch, Charles J., and McKean, Roland N. The Economics of Defense in the Nuclear Age. New York: Atheneum, 1965.

Horngren, Charles T. Accounting for Management Control: An Introduction. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965.

Ott, David J., and Ott, Attiat F. Federal Budget Policy. Washington: Brookings Institution, 1965.

Osgood, Robert E. Limited War: The Challenge to American Strategy. Chicago: The University of Chicago Press, 1957.

Posvar, Wesley W., et al. American Defense Policy. Baltimore: The Johns Hopkins Press, 1965.

The RAND Corporation. Program Budgeting. Edited by David Novick. Washington: The RAND Corporation, 1965.

Rockefeller Brothers Fund. Prospect for America. Garden City, N.Y.: Doubleday & Company, Inc., 1961.

Weidenbaum, Mrray L. Federal Budgeting: The Choice of Government Programs. Washington: American Enterprise Institute, 1964.

Wildavsky, Aaron. The Politics of the Budgetary Process. Boston: Little, Brown and Co., 1964.

Articles and Periodicals

"A Budget That's Bound To Bend," Business Week, January 29, 1966, pp. 27-29.

Anthony, Robert N. "New Frontiers in Defense Management," The Federal Accountant, XI (June 1962), 20-29.

"Can R & D Solve Tactical Warfare Problems?" Armed Forces Management, XI, No. 6 (March, 1965), 54-59.

Chipley, C. L., Jr. "Budgeting: A Never Ending Job," Monthly Newsletter Magazine of the U. S. Navy Supply Corps, XXVII, No. 7 (July, 1964), 9-11.

"Comptroller," Armed Forces Management, X, No. 2 (November, 1963), 64-68.

Smith, Charles A., Geographical Statistics of the United States, 1900.
Second Edition, New York, 1900.

Thompson, Charles F., Geography for Secondary Schools, 1900.
Philadelphia, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

U.S. Census Bureau, Geographical Statistics, 1900.
Washington, 1900.

Cooper, Parker C. "The U.S. Navy Planning and Budgeting Process," Naval War College Review, XVIII, No. 4 (December, 1965), 59-69.

"Cut in Projects Indicates Defense Budget Pinch," Evening Star (Washington), December 21, 1965, p. 1.

"Defense Keynoters Emphasize Force Structure, R & D and Costs," Armed Forces Management, XI, No. 7 (April, 1965), 44-53.

Friedman, Saul. "The RAND Corporation and Our Policy Makers," The Atlantic Monthly, CCXII, No. 3 (September, 1963), 61-68.

Hitch, Charles J. "Management of the Defense Dollar," The Federal Accountant, XI, June, 1962, pp. 33-44.

"Johnson's Dilemma: Coping With a Half-War," Business Week, December 4, 1965, pp. 27-28.

"Planners for the Pentagon," Business Week, July 13, 1963, Editor's Special Report, pp. 56-90.

"Policy for a Year of Uncertainties," Business Week, January 1, 1966, p. 84.

"The Job Is Half Done . . . Control Needs More Work," Armed Forces Management, XII, No. 2 (November, 1965), 75-77.

"The War in Viet-Nam," The National Guardsman, XIX, No. 12 (December, 1965), 8-15.

Unpublished Material

"Budgetation." Unpublished group study in Comptrollership, Navy Graduate Financial Management Program, The George Washington University, January, 1962.

"The Dollar Problem--Matching the Mission with Money," Unpublished group study in Comptrollership. Navy Graduate Financial Management Program, The George Washington University, 1960.

Butcher, C. J. "The Program Budget Control Concept -- Key to Management of the Department of Defense." Unpublished Master's Thesis, The George Washington University, 1963.

Myers, Louis. "Impacts of the Department of Defense Program System on Planning and Programming in the U.S. Marine Corps, 1961-1965." Unpublished Master's Thesis, The George Washington University, May, 1965.

"Performance Budgeting and Financial Management in the Department of the Navy." Unpublished group study in Comptrollership, Navy Graduate Financial Management Program, The George Washington University, 1961.

Schnurr, D. V. "Talking Paper--DOD Programming System." Unpublished written comments provided to the Assistant Secretary of Defense (Comptroller), September 20, 1965.

Other Sources

Interviews

Captain P. L. Sullivan, Associate Director (Plans-Programming), Office of the Director of Budget and Reports, Office of the Navy Comptroller, January 5, 1966.

Captain J. R. Johnson, Head, Budget Analysis Branch, Office of General Planning and Programming, Office of the Chief of Naval Operations, November 12, 1965.

Mr. D. V. Schnurr, Associate Director of Budget, Headquarters, U. S. Air Force, January 31, 1966.

Presentations

Philip L. O'Connell, Associate Director, Financial Services, Office of Navy Comptroller. Presentation for the Navy Graduate Financial Management Program at The George Washington University, January 10, 1966.

VADM E. P. Holmes, USN, Director, Navy Program Planning, Office of the Chief of Naval Operations, January 5, 1966, at a briefing presented for the Honorable Charles F. Baird, then designate Assistant Secretary of the Navy (Financial Management).

RADM E. E. Grimm, Director of Budgeting and Reports, Office of the Navy Comptroller. Presentation for the Navy Graduate Financial Management Program at The George Washington University, December 13, 1965.

Captain R. G. Schutt, Director, Program Change Control Division, Office of General Planning and Programming, Office of the Chief of Naval Operations. Presentation for the Navy Graduate Financial Management Program at The George Washington University, November 10, 1965.

Dick L. Jackson, Director, Progress Reports and Statistics Division, Office of the Director of Budget and Reports, Office of the Navy Comptroller. Presentation for the Navy Graduate Financial Management Program at The George Washington University, December 6, 1965.

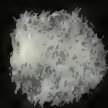
Miscellaneous

Dictionary of United States Army Terms. Headquarters, Department of the Army, AR-320-5, Washington, February, 1963.

Draft Memorandum from the McKinsey & Company, Inc., Management Consulting firm to the Assistant Secretary of Defense (Comptroller), "Management Planning Process," later forwarded for comment to the Service Secretaries by ASD (C), memorandum of January 6, 1966.

Memorandum from the Assistant Secretary of Defense (Comptroller) to the Service Secretaries and others, announcing a study of the Management Planning Process within the Department of Defense, September 30, 1965.

Memorandum from the Secretary of Defense to the Service Secretaries, June 24, 1965.



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